BLACK LUNG

The Discovery, Uses, and Stories of
Anthracite Mining in Northeastern Pennsylvania

By John "Dick" Zborovian

Edited and published by John Dziak

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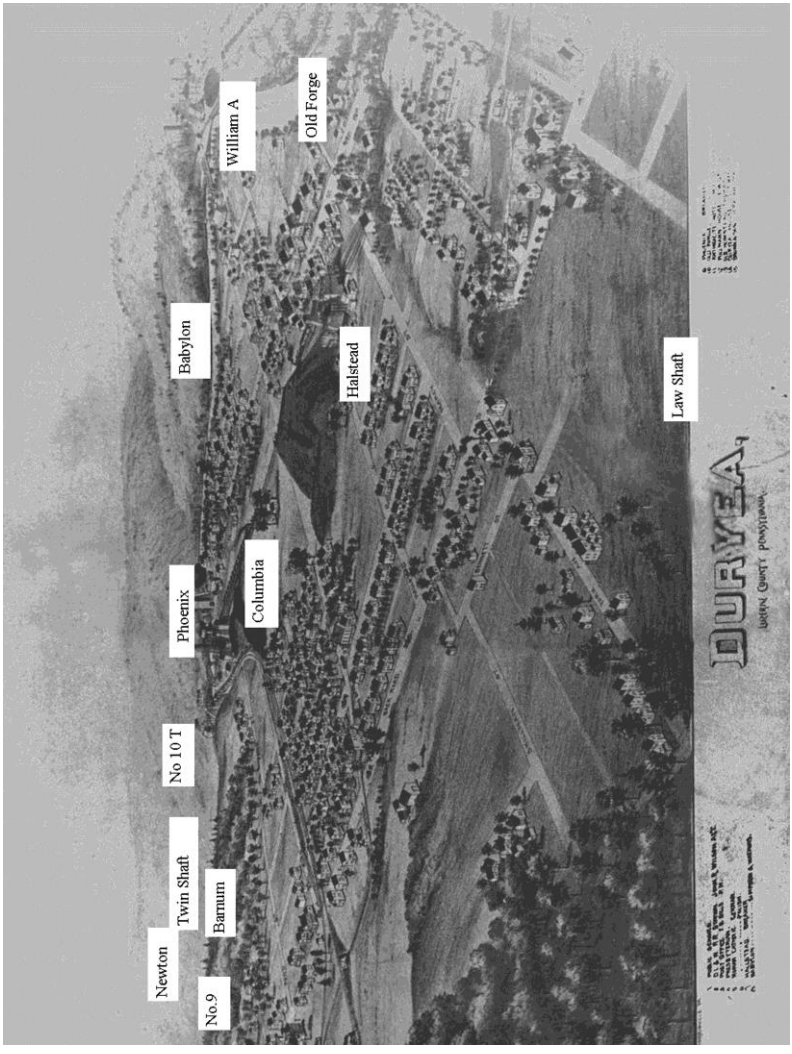


Approximate locations of breakers or major mine openings within walking distance of Duryea, Pennsylvania

CONTENTS

THE DISCOVERY AND BEGINNING OF "STONE COAL"	1
THE ANTHRACITE CANALS	18
THE ANTHRACITE RAILROADS	35
THE MINE ITSELF	41
CONDITIONS AND ABUSE IN THE MINES	50
BOSSES	53
TIMBER AND THE PROP YARD	58
LIGHTS FOR THE MINERS	61
SHIFTING SHANTIES	65
MULES AND MULE BARNS	67
RATS	71
SOME ACCIDENTS	73
THE HEALEY DROWNING AND THE BUTCHER WAGON	77
DISASTERS	79
STRIKES AND UNIONS	106
IMMIGRATION	118
BOARDERS	125
COMPANY STORES	129
PICKING COAL ON THE DUMPS	132
THE USUAL STOP AFTER WORK	138
A HIJACKING	142
CHILDREN OF THE COAL REGION	145
DYNAMITE BOXES	155
"ROBIN HOOD"	156
CONDITIONS AND ABUSE IN THE BREAKER	160
"BLACK LUNG"	165
CONCLUSION	168
AREA PHOTOGRAPHS	173
BIBLIOGRAPHIES	176
REFERENCES	177

FOREWORD

The anthracite coalfields of Northeastern Pennsylvania and the mine workers who spent their lives underground there played an important role in America's economy and history during the early stages of the Industrial Revolution. The mine workers and their families, immigrants from many different nations, not only brought their own cultures and traditions but also formed new ones as they adapted to the challenges of hard work, low pay, and a new country. New folk stories and even folk heroes arose.

Much of this legacy is in danger of being forgotten by these workers' descendants, but fortunately some talented and committed people have devoted great time and effort to recording at least some aspects of it. One of these very special people was John "Dick" Zborovian.

Black Lung, written by Mr. Zborovian in the late 1970s, is being published posthumously now to pay tribute to the author's memory and contribute to public understanding of the anthracite region's history and culture.

John (or "Dick" as he was known to friends) Zborovian was born in 1914 and raised in Duryea, Pennsylvania. Dick's grandfather, Joseph Zborovian, had immigrated to Northeastern Pennsylvania from Czechoslovakia. He worked in the mines there his entire life, as did his son, Steve (Dick's father). Dick spent some time in the mines as a young man but ultimately attended trade school and worked in Bloomsburg, Pennsylvania, as a machinist. He married Anna Mae Komensky and started a family there. World War II brought new opportunities and Dick helped build tanks for the war effort. Later, he moved back to Duryea with his family and worked at several jobs. After twenty-seven years at the Potlatch

Plant, Dick retired. He decided to spend his later years writing down the stories that he had heard throughout his life. Soon afterward, however, Dick was diagnosed with cancer and passed away in 1981.

Dick's interest in the material of this book came from a lifetime spent around mines and miners. Most of his friends had been miners. Like Joseph and Steve Zborovian, many of these miners had contracted and died from "black lung disease" (*anthracosilicosis*), caused by chronic inhalation of coal dust. This awful disease stood out so strongly in Dick's mind and memory that he used it as the title of his book.

Dick's preface provides a wonderful story of his mindset and goals while accumulating the information for his work. The majority of the information printed herein is directly attributable to Dick. Some updates or corrections were made, however, and some pictures were added. None of this would have been possible if Dick's son, Rich, had not saved the suitcase full of information left by his father. Rich contacted me through some mutual friends and, after looking at the information, I realized that it was a unique and very important treasure. Dick's writing and the approach he took preserved many priceless stories of the anthracite region. It was my honor to help bring it to print.

Many people were crucial in the process of producing and publishing this work. It could not have been completed without the help of Mr. Arthur Savokinas and his 2007 A.P. History class at Pittston Area High School. Students Rebecca Jenkins, Carlena Semenza, and Nicole Sciandra digitized the typewritten manuscript pages to help prepare them for publication. Dr. Alyce Zura of Duryea performed an early proofreading of the book, and Dr. John Dziak Jr., Mark G. Dziak, and Clark Switzer contributed other assistance and test

readings. And many special thanks to my wife, Mary Eleanor, for putting up with my literature searches and chronic lateness for nearly everything related to chores at the house.

I hope you enjoy this story of our past.

John Dziak
September 1, 2011

PREFACE

Although the anthracite fields are quietly disappearing from the Wyoming Valley, the chatter still continues about the "old days"—about the immigration of so many different nationalities to the coal fields during the late 1800s; the hardships encountered after arriving; the settling into jobs and the raising of families; and the cherished dream of a brighter future for each new generation. When cave-ins, flooding, or exhaustion of a coal vein closed a mineshaft, miners had to travel miles in the hope of securing new jobs at other mines, for all but a few lacked the skills needed for any other trade. Mining was in their blood. It was all they knew. If a new employer required them to undergo a physical examination, most would eventually be refused work because the exam would probably find them victims of miners' asthma, later called "black lung." Those fortunate enough to get work then moved their families to the new locations and started over.

As time went on, the older people–many of whom had lost loved ones or were themselves in or around the mines since as early as eight years of age–would reminisce about the conditions and problems of their past. A slip of the tongue about some incident and an elderly mother might be noticed walking away with her eyes filled with tears and her heart with memories.

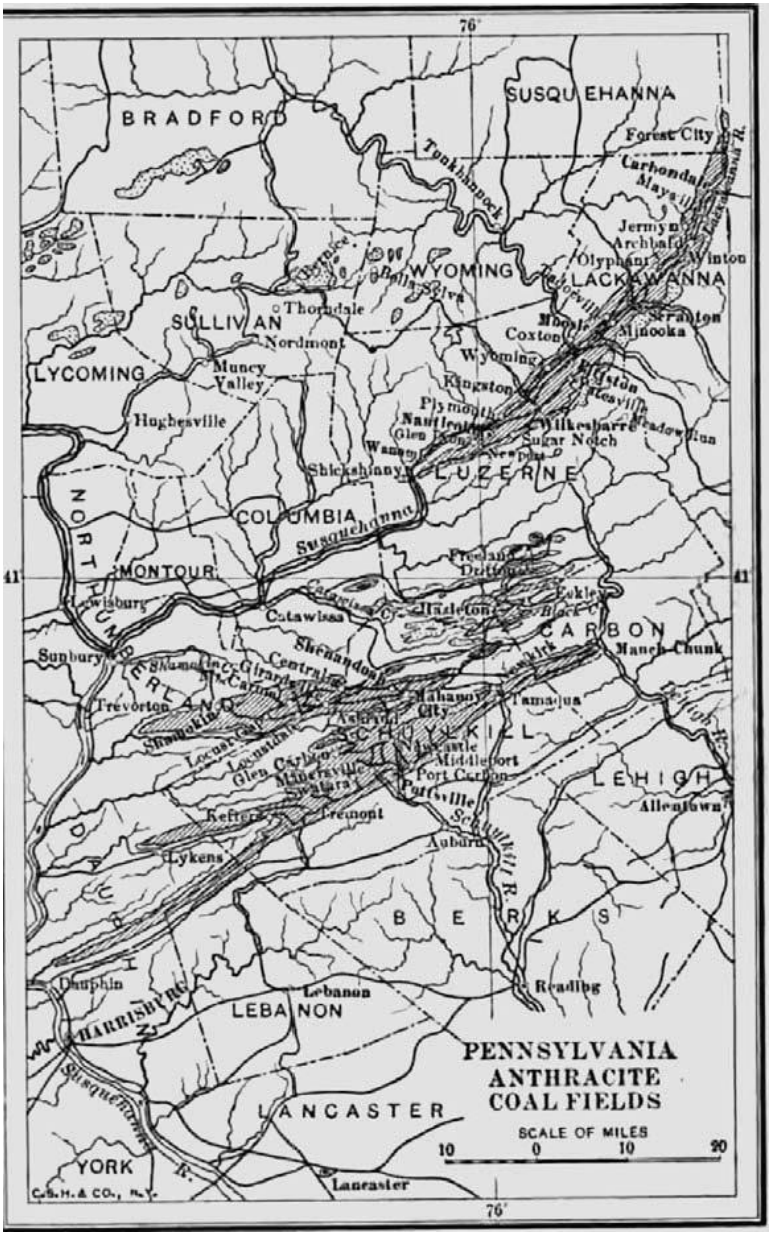
I was born and raised in this coal region and have had a few years of experience in the mines. It was from evenings having a drink or two with the miners in homes and hotels, listening to their stories, and even witnessing a few mining accidents personally, that I began to put together this book. I felt that the miners deserved more credit than they got, for it was the courage and stamina of these men, who worked the mines under the worst of conditions and at the expense of their own health, that gave this country its earliest and most widely used source of industrial energy. Mine workers laid the foundation for the prosperity of the great

Northeast part of Pennsylvania. I decided to pick up the story of the mines and their people and tell their true stories as they experienced them.

I want to thank all of the people who helped me in any way to make this book possible and give direction to this work. I thank them for their advice and counsel.

This book is dedicated to the anthracite miner and his family, past and present.

Dick Zborovian
April 1977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THE DISCOVERY AND BEGINNING OF "STONE COAL"

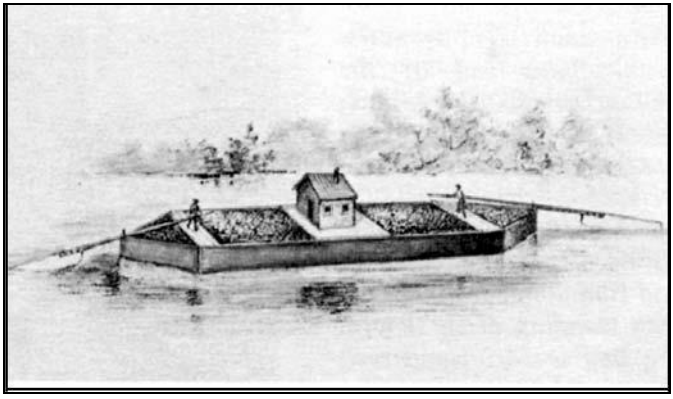
The discovery of anthracite can be traced to several regions of eastern Pennsylvania. Early settlers of the Wyoming Valley claimed that the Indians of the area knew the value of this stone. The existence of coal deposits in the Schuylkill Valley, the largest anthracite reserve in the state, was known in the early 1700s although just who made this discovery is not known. The presence of coal is noted near Mahanoy and Shamokin on the Schul map of 1770. However, these deposits did not come into prominence until a quarter-century after those in the Wyoming Valley.

Legend had it that a hunter named Nicho Allen was the first white man to discover that this "black stone" would burn. Homer Greene recounted this 1790 event in his book *Coal and the Coal Mines*: "Nicho Allen had been out with his gun all day and at nightfall had found himself too far from home to make the attempt to reach it. He accordingly built a fire under a projecting ledge at the foot of Broad Mountain, and, lying down by it, he soon fell asleep. He was awakened in the night by a strong light shining in his eyes and by the sensation of great heat. Springing to his feet, he discovered that the ledge itself was on fire. He could not understand the phenomenon and remained in the vicinity until morning, when he saw by daylight that what he had thought to be a ledge of rock was really a projecting outcrop of mineral coal which had become ignited from his campfire of sticks."

In 1763, the Susquehanna Company held a meeting at Windham, Connecticut. Members of the company reserved

all beds for mines of coal within the towns they had decided to settle in the Wyoming Valley. Colonel Francis, a Connecticut settler in the valley, had found "a very great fund of coal" on the banks of the Susquehanna River earlier that year. He informed the Company that "this bed of coal, situated as it is on the side of the river, may some time or other be a thing of great value." But it was not until a half-century later that the demand for the fuel really became important in any part of the state.

In 1769, Obadiah Gore, a Wilkes-Barre blacksmith, first successfully demonstrated the burning of anthracite in his forge. Several years later, a Schuylkill blacksmith named Whetstone began to fire his forges with anthracite. But more than a decade passed before this coal came into general use among the region's other blacksmiths. David Berlin's success with it in his forge in 1806 gave a real impetus to the coal trade.



Durham boat used to ship coal

During the Revolutionary War, anthracite was shipped to the arsenal at Carlisle to be used in the manufacture of arms for George Washington's army. This coal was mined at Mill Creek, a few miles below the mouth of the

Lackawanna River, and shipped down the Susquehanna in Durham boats to Harris Ferry (now Harrisburg). From there, it was hauled by wagon to Carlisle.

Judge Jesse Fell was the first to use anthracite industrially. He used it in his nail manufacturing operation in Wilkes-Barre in 1788. Twenty years later he made an important discovery about the burning of anthracite—namely, that it could be burned in an open grate without the aid of a forced draft.

Judge Fell's grate

Fell built a jamb of brick in his home fireplace upon which he placed four or five square iron bars to hold the wood and coal. Late in the night of February 11, 1808, Fell covered the grate with hard wood, ignited it, and placed a pile of coal on top. The coal burned through the night. The next morning Judge Fell awoke to find a hearty anthracite fire. Fell had been concerned about being criticized by neighbors, even conducting his experiment in late-night secrecy, but now he had nothing to hide and wanted to go public with his amazing findings.

Fell noted the event in the *Masonic Monitor*:

> "February 11, of Masonic 5808. Made the experiment of burning the common stone-coal of the valley, in a common fire-place in my house, and find it will answer the purpose of fuel, making a clearer and better fire, at less expense, than burning wood in the common way."

This was the first time anthracite was used for home heating, which was to someday become one of its most important uses.

There were others who claimed that they had burned stone coal in an open grate long before Judge Fell did, but Fell was the first to bring the value of anthracite as a domestic fuel to the public's attention.

William Morris is credited with introducing anthracite, however unsuccessfully, to the rest of the world. In 1800 he took a wagonload of coal to Philadelphia but was unable to sell it. The next attempt to ship coal from the Schuylkill region took place in 1812 when Colonel George Shoemaker of Pottsville formed a partnership with Nicho Allen to purchase the coal fields nearby and sell the mineral to the local residents. Allen eventually gave up, since only the blacksmiths of the area seemed interested in buying the coal. However, Colonel Shoemaker headed for Philadelphia with nine wagons of coal. He managed to sell only two loads and was compelled to give away the rest. Prospective buyers were determined not to be swindled. In writing of early efforts to introduce anthracite into Philadelphia, Hollister recounted that "men, however upright and honorable, who talked toward its [anthracite's] introduction into common use in Philadelphia, were deemed fanatics

and ridiculed accordingly; those attempting to sell the stuff for cash, compromised their integrity and, in some instances, barely escaped arrest and maltreatment from the hands of the populace."

But Shoemaker would not give up until he succeeded in convincing Messrs. Mellon and Bishop to use the stone coal in their rolling mill. The mill fireman, however, thought the coal was useless and labeled Shoemaker a crook. One morning before workmen arrived, Mellon and the colonel built a wood fire in one of the furnaces, covering it with coal. After the characteristic blue flame of freshly kindled anthracite appeared, they closed the furnace door and went to breakfast. Upon returning later, they found the furnace to be "a perfect glow of white heat." Iron then put into the furnace melted more quickly and passed through the rolls more easily than usual.

The other wagonload sold by Shoemaker in Philadelphia was purchased by two wire-mill operators, Messrs. White and Hazard, from Schuylkill Falls. In an attempt to fire their furnace, "a whole night was spent in an effort to make the coal burn when the hands, in despair, quit their work but left the door of the furnace shut. Fortunately, one of the workmen forgot his jacket and returned to find everything red-hot."

Therefore, it was by accident in both cases that the secret to effective anthracite burning was discovered: if left alone and given a chance to burn slowly in a closed furnace, a fine anthracite fire would result.

Thus Shoemaker's first venture into the anthracite business was not too promising. Most of the coal he had brought to the city to sell, he was compelled to give away, after paying nearly $28 a ton for it himself back in Pottsville. And

furthermore, this fine, upstanding citizen of Pottsville was denounced as a "cheat and swindler" in Philadelphia. (One highly dissatisfied customer even obtained a warrant for Shoemaker's arrest!) But his dream of a great mining industry that would transform the sleepy little Schuylkill Valley into a major center of coal production would soon become a reality.

Word of the discovery of "stone coal" along the Schuylkill spread throughout the northern part of the state. In the Lehigh Valley near the Mauch Chunk Mountain, a hunter named Philip Ginter came across some black dirt and small pieces of coal under the roots of a tree that had been blown down. He showed a few pieces to Jacob Weiss at Fort Allen. Weiss offered to pay Ginter for information about the location of the black dirt. In return for the information, Ginter instead asked only for a small tract of land near a stream on which to build a sawmill. He did not want to become a part of the mining company—the first in the anthracite region—that Weiss had formed with Robert Morris and John Nicholson. Ginter did realize his mistake eventually. In his own words, "the discovery made hundreds of fortunes, but I may say it ruined me, for my land was taked from me by a man who said he owned it before I did, and now I am still a poor man."

The company that Weiss founded, with several of the Lehigh Valley's most prominent citizens, was the first company ever formed to mine anthracite. The land on which the coal was found, had been of little value, so that Weiss was able to purchase a tract of several thousand acres easily. The company's operation began in May 1792, with one of its members acting as mining engineer. The uprooted tree had revealed an outcropping of anthracite; little digging was necessary to mine the company's first few tons.

Although the first mining attempts were highly successful, getting the coal to its only market at the time, Philadelphia, proved to be the difficult part of the operation. Sending it down the almost un-navigable Lehigh River was disastrous. Occasionally, Colonel Weiss would load his saddlebags with coal and visit the local blacksmiths in an attempt to convince them to use it in their forges. But he found few customers. Most of the smiths did not seem to know how to burn the anthracite properly—even though blacksmiths in the Wyoming Valley had been successfully using it for almost a quarter-century by then!

Around 1790, Isaac Tomlinson discovered deposits of anthracite in the bed of a stream that ran through his farm in Shamokin. Being a blacksmith, he immediately began experimenting with the coal in his own forge. By 1810 he was burning it regularly in his forge.

In the meantime, John Thompson, a fourteen-year-old boy from Shamokin, mined a load of anthracite from Tomlinson's stream and hauled it to Sunbury, where he sold it to a shoemaker for five dollars. But it was not until 1826 that any company was set up to market that area's anthracite. A writer of those times noted that "[this coal] is found in considerable quantities higher up [the Shamokin and Mahanoy] streams to the base of the Broad Mountain, in a direction toward Pottsville and Mauch Chunk. Several of these mines have been partially opened, and the coal hauled in wagons to Sunbury to supply neighboring blacksmiths. It is preferred by them who have used it to either Wilkes-Barre or Schuylkill coal. It is light and inflammable."

John Charles of Hazleton was the first man in that area to discover its anthracite deposits. While on a hunting trip in

1826, he came across a woodchuck's hole and began to dig for the animal. It is not known whether he ever caught the woodchuck, but he did find a projecting shelf of anthracite while digging. Further explorations were eventually made, and the anthracite industry in Hazleton began.

In 1806, William Turnbull tried his luck at selling a few hundred bushels of anthracite in Philadelphia. People were now more receptive, but wood was abundant and the cost of transporting coal from up north to the city made the price too high to be taken seriously by most homeowners and small businessmen.

Charles Miner and Jacob Cist, two residents of the Wyoming Valley, began to submit articles to the newspapers of New York and Philadelphia in which they explained how to use anthracite. In 1813, they had leased the lands of the Lehigh Coal Mine Company for ten years and were now trying to develop a market for their product. They journeyed down the Lehigh River with five boatloads of coal; by the time they reached Philadelphia, only two loads remained. Once in the city, the two men began their promotion: publishing handbills which explained how to burn the coal in stoves, forges, furnaces, and so on; visiting homes and blacksmiths' shops personally to give demonstrations; and even tried "sometimes… to bribe journey-men to try the experiment fairly, so averse were they to learn the use of a new sort of fuel."

The federal government began to buy anthracite to aid in arms manufacture during the War of 1812, but the price of the resource was dropping. After the war, the price dropped below the cost of production. Miner and Cist could no longer afford to transport their coal to Philadelphia and, consequently, they forfeited their lease. Cheaper means of transporting the coal downstate was clearly needed.

Wyoming Valley residents Abijah and John Smith purchased some land in Plymouth in 1806 in the hopes of starting an anthracite mine there. This was a very ambitious venture at the time, for there was still no really substantial market for coal. Since this was about two years before Judge Fell's discovery, the coal-mining business certainly did not hold much promise for the future. But the Smith brothers had faith. They shipped 55 tons down the Susquehanna to Columbia in 1807, hoping to find a buyer there. However, they did not, and were forced to return home, leaving their load of coal in Columbia unsold.

Opening of Abijah Smith's mine

Things went better, though, in the following year, after news spread of Fell's discovery. This time, the Smiths sent seven boatloads down to Columbia, accompanied by some masons who were to set up a few suitable fireplaces and publicly demonstrate the uses of anthracite in home

heating. With the coal selling at the time for $10 per ton, the masons were able to show that a ton of anthracite produced an equivalent heat to two and one-half cords of the best hardwood. Clearly this new fuel was a good investment. It also had the decided advantage of being a clean-burning, easy-to-use, and efficient resource. The market quickly began to expand.

By 1812, the Smith brothers had also found a market for their coal in New York City. It was selling there at $16.67 per ton. They shipped the coal from Plymouth to Havre de Grace, Maryland. From there it was taken by schooner to New York Harbor.

William and Maurice Wurts were two young merchants from Philadelphia who also sought their fortune in the anthracite mining business. When the War of 1812 blockade cut off the supply of coal from Liverpool and Virginia, they saw their opportunity.

Early in 1812, while prospecting for coal in the Lackawanna Valley, William Wurts met a hunter, David Nobles, who was fleeing from a neighbor to whom he owed money. Wurts hid the man in his camp. In return for this favor, Nobles, who knew the area well, agreed to help Wurts locate some coal lands. With typical shrewd business sense, Wurts was eventually able to acquire some very large tracts of land near Carbondale for less than $3 per acre.

Wurts and his brother began their operations in 1815 at Carbondale. They intended to ship the coal down a small stream to the Wallenpaupak and, from there, down the Lackawaxen and Delaware Rivers to Philadelphia. However, the stream proved to be too rough. A routing change had the coal carried by wagon to the

Wallenpaupack, which was successful. Their first load reached Philadelphia by the end of 1815. The hauling by wagon was no easy task, however. At times the weather was bad, sometimes with heavy rains that interfered with the wagons and bogged them down. The men would have to work very hard to keep the wagons moving. The road was narrow and when a wagon became stuck in the soft ground, timber would have to be cut out or rocks moved to make room for another team to pull up alongside the disabled wagon and tow it out of the rut. The men would camp along the road and rest the horses. It was not uncommon for a horse to break a leg on this rough road to the river. When this occurred, the men generally had to shoot the horse and replace it with a spare animal that had been brought along for that very reason. The cost of the hauling was expensive: $2.50 a ton from the mine to the Delaware. And so, for these and other reasons, shipments to the river stopped.

Many prominent men would meet to discuss the problem of finding a way to haul the coal to the river in a faster and safer manner with the least expense per ton. After several meetings the men decided that the best transportation available at that particular time was the horse and wagon, but it would have to be arranged that the wagons would travel in drier weather, when possible, to avoid the muddy breakdowns. Coal would be piled in certain areas along the way, and reloaded later to make the final journey to the river.

In 1822, the Wurts' mining operation resumed at Carbondale. The workmen lived in an open camp. Their supplies were brought in by horseback. A crude pump, operated by the river current, kept the mine relatively clear of water. By winter they had succeeded in mining eight hundred tons of coal. This was drawn on sleds over the

mountain to Rixe's Gap and placed on arks on the Lackawaxen to be floated down to Philadelphia when the spring thaw came. One hundred tons reached Philadelphia, where the Wurts brothers now found keen competition in the coal market. The price was $12 a ton, which made it unprofitable for them to ship any more anthracite downstate. They decided to concentrate on the New York market.

By 1830, the use of anthracite was growing. Canals, gravity railroads, and roads were being built. Gradually, anthracite replaced wood in the fireboxes of steamboats and locomotives. The production of anthracite still outpaced the demand, however, and the market value fell from $6 to $4.50 a ton. Wages fell accordingly, with miners' pay dropping to $1 per day and laborers' pay to 82 cents.

However, this would soon change. People would come to realize that the most important use of the coal was as a source of heat for offices, homes, and factories. As a clean, smokeless combustible fuel, anthracite soon recognized as ideal for both residential and industrial uses. When it became apparent that the supply of anthracite was not inexhaustible, a tendency developed to conserve the larger sizes for domestic use; the smaller sizes were used for industrial steam production.

An increasing number of factories and mills began to use anthracite during the nineteenth century. Anthracite was used for steam generation at Thompson's rolling mill in Phoenixville in 1825. Four years later, Abraham Pott used this coal in his sawmill near the mouth of Mill Creek in Schuylkill County. These local pioneers of anthracite use followed in the footsteps of Englishmen such as Savery, Newcomen, and Watt, who used coal to power their steam engines.

Anthracite was first used in the working of iron in the wire works of White and Hazard at their Schuylkill Falls mill and at the rolling mill of Mellon and Bishop back in 1812. On December 19, 1833, F.W. Geisenheimer received a patent for smelting iron ore with anthracite, but, although he experimented with the new procedure, he never put it to large-scale use.

The most successful early attempt to use anthracite in smelting operations was made by William Lyman of Boston in his Pioneer Furnace at Pottsville. Using only anthracite as fuel, he produced pig iron continuously for one hundred days. (For this feat, Lyman was awarded a $5000 prize from a number of Philadelphia's leading citizens, including Nicholas Biddle.) In 1836, David Thomas of Catasauqua used anthracite in the blast furnace "stove," which James Neilson had recently invented to pre-heat the blast of air blown into the bottom of the blast furnace. This was a major advancement in the smelting process.

Another pioneer anthracite miner was Abraham Williams, who, in 1805, placed the following advertisement in *The Federalist*, published in Wilkes-Barre:

> The subscriber takes this method of informing the public that he understands miners' work. He has worked the greater part of twenty-three years in the mines of Wales, one year and a half in Schuyler's copper mines in New Jersey and three years in the Ogdens' mine in the same state. If anybody thinks there is any ore on his lands, or wants to sink wells, blow rock or stones, he understands it, wet or dry, on the ground or under the ground. He will work by

> the day or by the solid foot or yard, or by the job, at a reasonable wage or for country produce.

As evidenced by this advertisement, the early methods of mining were exceedingly simple. Most of the operations consisted of merely quarrying the coal from the exposed outcroppings, usually driving on a slight incline to permit natural drainage. The apparent richness of the deposits invited waste. For many years it did not seem that the sinking of deep shafts would become necessary. Knowledge that rich beds of anthracite existed many feet below the surface would have been of little effect, anyway, for machinery and equipment had not yet been devised to make deep extraction possible.

Gradually the increased demand for the product and the exhaustion of the exposed deposits forced the simple, wasteful mining methods of earlier days to give way to more highly organized operations. Even today, however, a considerable tonnage of bituminous coal is secured by methods akin to those of the pioneer days of the anthracite industry—by farmers fortunate enough to find a coal outcropping on their land. In such cases, a common procedure is simply to blast out all of the coal possible and haul it away by wagon.

In the early days of anthracite mining, when it was no longer possible to secure coal from a given outcrop, a small pit was sunk to a depth of thirty to forty feet. The coal was brought to the surface by means of a windlass worked by hand. When the coal (and the water that had accumulated in the opening) could no longer be safely or economically brought to the surface by this method, the pit was abandoned and a new one started somewhere else. At first, the coal was removed from drift mines in wheelbarrows,

but as the workings penetrated deeper into the coal-bed, tracks were laid on which cars or buggies were hauled by horses, mules, or sometimes oxen.

An interesting account of early mining methods and the introduction of blasting powder is contained in the following excerpt from *Historical Sketches of Plymouth, Luzerne County*:

> "In the early process of mining there was no powder used; this is the chief agency under the present system. It was all done with the pick and wedge. The miner did his labor by the day and received from fifty to seventy-five cents. The product of his day's work was about a ton and a half. His time was from sunrise to sunset. The coal was transported from the place of shipment in carts and wagons and deposited upon the banks of the river, to be put into arks in the time of the annual spring freshets of the Susquehanna. The process of mining with the pick and wedge was too slow and expensive. Mr. Abijah Smith came to the conclusion that the ordinary powder blast might be made available in mining. He must have someone, however, who was accustomed to the quarries. There was no one who understood the business. In the year 1818, he found that he could get a man for this work. This man was John Flannigan of Milford, Connecticut. He [Smith] wrote to Mr. Flannigan to come and make the experiment—we say experiment, because it was contended that coal had not enough strength and consistency to be properly mined with a blast, and that the explosion would not reach far

enough and loosen and detach a sufficient quantity to make the blast economical mining. In March of that year, Mr. Flannigan came. The result of the experiment was a success. We may therefore chronicle the name of John Flannigan as the first man who ever bore a hole and applied the powder blast in the anthracite coal of Pennsylvania.

"In August, 1818, John Flannigan returned to Connecticut for the purpose of bringing his family to the anthracite region. Mrs. Flannigan left such a graphic account of her journey from Connecticut to Abijah Smith's farm that it is worthy of inclusion here, as it portrays the difficulties of travel before the advent of canals and railroads: 'On the sixth of September, 1818, my husband, myself and five children, in company with Samuel French and Henry Gabriel, set out for the Susquehanna. Our conveyance was a two-horse covered lumber wagon, in which myself and children and a few traps were deposited; the men were walking. At the end of eleven of the longest days of my life, we landed at Smith's farm in Plymouth. I bore up under the dreary journey and preserved my courage pretty well, until we struck the logway, on the Easton-Wilkes-Barre turnpike, when I was forced to give vent to my feelings and wept like a child. Had I but foreseen, before starting, the trials and misery of the long journey ahead, I should never had consented to have left my old home and friends.' Although John Flannigan was successful in blasting down anthracite with powder, the cost

of mining and transporting it to market was still very high. The Smith brothers mined an average of about 450 tons per year between 1808 and 1820 and were among the successful anthracite producers of their time."

THE ANTHRACITE CANALS

Today we are so accustomed to rapid and comfortable means of transportation that we can scarcely comprehend the primitive traffic conditions which existed in the nineteenth century. Steamboats were just beginning to be seen on a few navigable rivers, and roads were little better than trails, almost impassable during the winter and spring thaws. The horse, ox-cart, and stagecoach were the best modes of overland travel. Nevertheless, transportation was the lifeblood of the infant industries. Without means of transportation, the natural wealth of the country could have little economic value. This was particularly true of the anthracite deposits of northeastern Pennsylvania. In that area of rugged hills and valleys, efficient means of transportation became a necessity.

By 1825, two-thousand miles of improved roads had been constructed through Pennsylvania. Most of these roads were turnpikes. Studded with taverns for the accommodation of travelers and teamsters, these roads were of much assistance in facilitating the movement of freight in small quantities. The cost of such traffic, however, was high, often as much as ten cents per ton-mile. To haul a ton of goods from Philadelphia to Pittsburgh cost $125. To move just one bushel of salt over any road for a distance of 300 miles cost $2.50. Obviously the turnpike system was not the answer to the problem of cheap transportation.

Steamboats were useful on the waterways of the West and Midwest, but were not popular in the rugged country of eastern Pennsylvania with its turbulent and frequently un-navigable rivers. The need to get anthracite to market was an important factor in bringing about the first great revolution in America's water transportation. The first attempts in this country to establish an inland waterway system had their origin in efforts to get the "stone coal" of the Schuylkill, Lehigh, Wyoming, and Lackawanna Valleys to market.

The building of the Schuylkill Canal was one of the earliest projects of its kind in the United States. And no small task it was. In 1827, the report of the Schuylkill Navigation Company said: "Even in colonial times, Doctor Franklin and other distinguished and patriotic men turned their attention to the subject of improving the river, but the magnitude of the work delayed the enterprise." With only manpower, picks and hand shovels, and ox-carts to carry away the excavated material, it is incredible that such an ambitious project was attempted at all.

In April, 1811, the Pennsylvania Legislature chartered the Union Canal Company, but little work was done for several years. The company's canal was not finished until 1827. In the meantime, the Schuylkill Navigation Company was chartered to improve the Schuylkill River itself.

Although almost from the beginning the carrying of anthracite became the chief business of the canal, this was not the main purpose of its builders. The waterway was originally planned to supply an outlet to the seaboard for the lumber and agricultural products of the

Schuylkill Valley. That would draw through the state a considerable portion of the growing commerce of the thriving country beyond the Alleghenies. But while the managers of the Schuylkill Company ventured to predict that "coal might one day be carried along the Schuylkill to the amount of ten thousand tons per annum," even the state senator from that county was refusing to admit to the legislature that there was any value to the "black stones" found in the region.

Work progressed slowly and proved to be much more costly than had been anticipated: a complete slack-water system had to be built instead of just sluices on a part of the canal. The board of managers was compelled repeatedly to ask for increased contributions from the stockholders. And had it not been for the loyal support of Stephen Girard of Philadelphia, the completion of the Schuylkill Canal would doubtlessly have been abandoned entirely.

A unique feature of the canal, and a great curiosity in those days, was a short tunnel through which the boats passed. This was the first tunnel for transportation purposes driven in North America. It was located just above Port Clinton and was 450 feet long with an arch 75 feet wide. The building of this tunnel was started in 1818 and completed in 1821. Many people came from all over the state to see the marvelous site of boats passing through an entire mountain.

In 1822, the first shipments of coal were made; that year 1,480 tons of anthracite were moved down the river. By July 1824, the twenty-two mile stretch below Reading was opened and named the Girard Canal in honor of the chief financial backer of the undertaking. Boats made the

complete trip from Pottsville to Philadelphia—a distance of 108 miles—by the end of 1824.

The canal was originally only three feet deep and permitted the passage of boats having a capacity of only 18 tons, but by 1844 the channel has been deepened until the carrying capacity has risen to 60 tons (later increased to 200 tons). No tolls were charged during the autumn of 1822, to encourage use of the waterway.

With the demand for coal now growing, the full operation of the canal allowed for the flourishing of the mining industry along its banks. In 1840, 612,000 tons of freight were handled by the canal, of which 452,000 tons were anthracite. W.W. Munsell's *History of Schuylkill County* recounted the scene:

> "The turmoil of business resounded in the streets of Pottsville; coal wagons in a continuous train, were conveying the treasure of the mines to the landings; the wharves presented an enlivened picture of activity; there was talk of having relays of horses on the canal to hasten the transit of anthracite to the markets where it was so anxiously expected. Great impatience was displayed at the snail-paced way of dragging along on the canal with one horse, and that only in the daytime. Coal was king, and all the people in the coal region were its worshippers."

But it was not all success and good cheer. Reverses disturbed the optimism of this bustling region. The traffic along the canal was interrupted by breaches in its

walls and by damaged locks. Tedious delays in making repairs bred impatience.

Although in the 1820s and early 1830s people believed that the supply of anthracite above water level would not be exhausted in that generation, by 1835 it had become necessary to run slopes to lower beds. The industry grew. Ignorance about the geology of the coal formations, together with the speculative nature of many mining enterprises, added to the unique features of these early days of anthracite.

In 1835, a boatmen's strike crippled traffic on the Schuylkill Canal and caused a suspension of mining for three weeks. But the anthracite trade of the region began to expand beyond the Philadelphia market. By 1837 it had reached New York City.

Following the establishment of regular trade from the Schuylkill region, there was a time of great excitement and wild speculation (which would again develop, a generation later, upon the discovery of oil in the state). Speaking of this period, *The History of Schuylkill County* explained:

> "There was a rush to Schuylkill County of a promiscuous crowd of capitalists, adventurers, and fortune hunters who were inspired with the delusive phantom of suddenly becoming millionaires in the new El Dorado. This was the first speculative era (1829) of the Schuylkill coal trade. Pottsville, the center of the movement, overflowed with strangers for whom there were very limited accommodations and

lodgings provided; a share of a bed was a fortunate circumstance; a chair to repose in was a cause of congratulation or envy, and, inasmuch as strangers had liberty to sleep on the floor, there was a lively competition for the softest plank. A few provident travelers, having special regard for their bodily comfort, carried their beds on the top of the stagecoach, ready for any emergency. The mirth their arrival created while unloading at the hotel can be readily imagined. In this assemblage of solid men and convivial spirits there was not wanting a representation of the silk glove set, with fast horses and dashing turnouts, who did not fail to astonish the natives…

The mountains were scarified by pits and trail shafts sunk by enthusiastic prospectors, traces of which yet remain. Having no knowledge of the geology of the coal formation, these searchers 'went it blind' and trusted to chance, and many dug graves of their sanguine hopes and their small capitals in the vain search of anthracite.

After such failures, the mysterious disappearance of fast teams with their owners, without the formality of paying their bills, was not an uncommon occurrence. Other and more successful explorers revealed the existence of a great number of veins of coal, extending over a vast stretch of country and abounding with a seemingly inexhaustible quantity of the

> combustible. These discoveries fanned the flame of excitement; lands were bought with avidity; roads were laid out in the forest and railroads projected and innumerable town plots decorated the walls of public houses. The demand for houses was so great that the lumber for quite a large number was framed in Philadelphia and sent to the coal region ready for the joiner. The spectacle was presented of a city coming up the canal in boats—a forest moving to make way for a thriving town. Whole villages along the roadside then sprung into existence like mushrooms. The opportunities of promising land speculation were almost unexampled, and many fortunes were made by shrewd and enterprising capitalists."

Land increased rapidly in value from a few cents an acre to several hundred dollars an acre. Fortunes were made—and lost. Within six months from the peak of this speculative period, it is said that nearly five million dollars had been invested in the coal lands of Schuylkill County, and, in those days, five million dollars was a great deal of money.

While the Schuylkill Canal has seemingly solved the problem of transporting coal from the region to the Philadelphia market, there still remained the task of getting the coal from the mines to the wharves for loading into the canal boats. During one week in June 1829, 1,831 tons of coal were drawn from the mines near Pottsville over roads that were described as "rivers of slimy mud." The railroads, with networks of branches extending to the numerous mines, were soon to afford

welcome deliverance from this burdensome method of transportation. Nevertheless, for a half-century and more, the Schuylkill Canal has a tremendous influence upon the development of the natural resources of the valley from which it took its name.

The advent of the railroads spelled the eventual doom of the canal, however, and in 1870, the Schuylkill Canal was leased for 999 years to the Reading Railroad Company. During the last quarter of the nineteenth century, like most other inland waterways, the canal suffered in the general decline of traffic brought about by the competition of faster and more convenient railroad transportation. Regardless, the Schuylkill Canal still stands as a monument to the pioneers of the anthracite industry in the Schuylkill Valley.

In 1817, the company of White, Hazard, and Hauto leased the property of the Lehigh Coal Mine Company and obtained permission from the State Legislature to improve the navigation of the Lehigh River–or, as someone at the time put it, the privilege of "ruining themselves," because all previous attempts to make the river navigable had failed miserably. To men less energetic than White and Hazard, a country so forbidding would have constituted an impossible obstacle to their bold plans. But Josiah White was a typical Yankee, a self-taught engineer who had spent his life developing the resources of a new country. And although the quantity of anthracite in the Lehigh region was then wholly unknown, White and Hazard believed it was sufficient, together with the other products of the valley, to warrant the huge undertaking involved in putting the river into navigable condition.

The History of the Lehigh Valley noted this task:

> "A large body of wild lands, containing an immense amount of anthracite coal, having been purchased in the neighborhood of Mauch Chunk, operations were commenced in 1818 to improve the river and to start the Lehigh coal trade. It was found to be a much more serious and expensive undertaking then had been anticipated. The Lehigh is a large stream, having a great deal of fall, and a very rocky bottom. The channels were crooked and intricate, and the fall was so great that when the river was low, there was no navigation whatever. Messrs. White and Hazard were their own engineers. They waded in the stream; they sounded the channels; they took the levels of the rapids; they directed the blasting of the rocks, the building of the wing-dams, and the removal of the bars. But something more was needed to make a good descending navigation, and this was effected by means of a system of flushing, called 'artificial freshets.' These artificial freshets were produced at intervals, and generally daily during the season of navigation, by storing up water in the pools of dams built across the river, of log crib work, filled in with stone. Wide sluices for passing rafts and coal arks, were made in these dams, and they were readily opened and shut by one man, by means of hydrostatic pressure, acting in a contrivance of Josiah White, known by the name of the 'beartrap lock.'"

These “beartrap locks” were a necessary part of the canal because an unprecedentedly low water level in the season of 1818 had created a serious menace to the undertaking. White and Hazard had been told by people living in the area “that the water in the river never fell below a certain mark on a rock at Lausanne Landing.” White and Hazard were satisfied that they would be able to meet the stipulation of the Legislature which required an improvement in the river making possible “a navigation downward once in three days for boats loaded with 100 barrels or ten tons.” Josiah White’s device solved the problem.

White and Hazard’s lease from the Lehigh Coal Mine Company required that they deliver to Philadelphia at least 40,000 bushels of coal annually. To fulfill this requirement, the Lehigh Coal Company was formed in October 1818. Its purpose was to build the “impossible” road from the mines to the river and to deliver the coal to the Canal Company. The road was laid out in 1818 and, despite the ruggedness of the country, completed the following year.

On April 1, 1820, the Lehigh Coal Company and the Lehigh Navigation Company united, forming the Lehigh Navigation and Coal Company. In that year, 365 tons of anthracite were shipped over the new route to Philadelphia. With this shipment, “Lehigh” coal became a factor in the domestic and industrial life of the nation.

The boats used on the canal were rectangular boxes about 25 feet long and from 16 to 18 feet wide. A number of them were fastened together in one long train by hinges that permitted flexibility when passing the

dams and sluices. Sometimes the linkage of boats reached 180 feet in length.

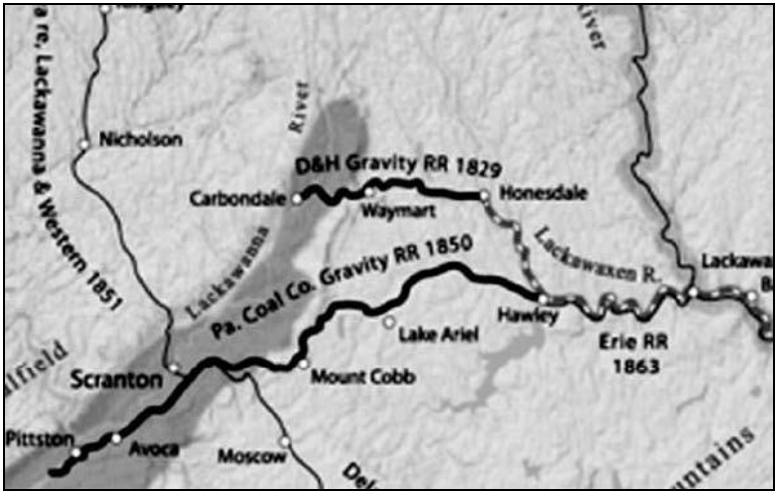
The boats usually made only one trip and at end of the route were broken up and sold for lumber. The spikes and iron were returned to Mauch Chunk to be used in new constructions. Special machinery was devised to cut the definite forms of planks required in the making of the boats, and so skilled did the workmen become that five men could put together and launch a boat in just forty-five minutes.

The uninterrupted slack-water navigation of the Schuylkill Canal was forcing keen competition upon the Lehigh Company. Something had to be done. In 1827, the state voted to build the Delaware Division Canal and to improve the Lehigh by a canal and slack-water system from Mauch Chunk to Easton. In June 1829, the improvements on the on the Lehigh were completed and the canal reopened to traffic. Three years later, the Delaware Division Canal was in operation, communicating with Philadelphia.

The Lehigh connected with the Morris Canal at Easton, thus providing an outlet to New York and another markets. The slack-water systems of navigation also solved the problem of the timber supply, for it then became possible to return the boats to the mines to be used over. However, shortsightedness on the part of the Legislature in not making the Delaware Canal uniform in size with the Lehigh Canal seriously interfered with the development of the Lehigh region. It made it necessary for the coal boats to transship at Easton, thus causing delay and adding to the cost of distribution.

Later, the Delaware and Hudson Canal Company was formed to secure a means of transporting anthracite from the Northern Wyoming Field to New York. In 1823, the Pennsylvania Legislature authorized Maurice Wurts to improve the navigation of the Lackawaxen River, while the Legislature of New York granted the Canal Company a perpetual charter and full authority to construct a canal from tidewater on the Hudson to the Delaware River and up the Delaware to the mouth of the Lackawaxen. This construction, however, was strongly opposed. Capital was scarce and investors were wary of lending for such a project. The active support of the public was also lacking. Many looked upon the project as impractical: the elevation between the Delaware and the Hudson was regarded as an insurmountable difficulty. The promoter of the undertaking, however, had no misgivings. Access to rich mines, dense forests of lumber, fertile agricultural lands, and the subsequent toll traffic gave promise of commercial success. The New York Legislature authorized a capital stock of a half-million dollars.

The Delaware and Hudson Canal Company purchased from Maurice Wurts the rights conferred upon him by the State of Pennsylvania to improve the navigation of the Lackawaxen River. Actual construction began on July 13, 1825. In October 1828, Philip Hone of the Board of Managers notified the New York State Legislature that the canal was completed and the railroad from the mines at Carbondale to Honesdale was well underway. On December 5, 1828, the first boats carrying coal arrived at Rondout from Honesdale—eleven boats, each carrying ten tons of anthracite. And the first cargo of the company's "Lackawanna Anthracite" arrived in New York City on the sloop *Toleration* five days later.



Delaware and Hudson Transportation System

The canal was a great achievement, representing the largest private enterprise undertaken on the American continent up to that time. The canal was 108 miles long and 32 feet wide, and the minimum depth of water was 4 feet, affording capacity for boats carrying 30 tons or less. The canal was carried across the Rondout on a stone aqueduct supported by two arches; across the Neversink and smaller streams by wooden trunks on stone piers and abutments; and across the Delaware by means of a dam and slack-water. It was spanned by 137 bridges. In the first year of its operation, 7,000 tons of coal passed through it; by 1840, the traffic has increased to 148,000 tons.

The Delaware and Hudson Canal carried anthracite from the Wyoming Valley region to New York and New England for nearly three-quarters of a century. These deliveries made by the canal became a significant factor in making the Northeastern United States a center of

manufacturing and industrial supremacy for many generations.

The *History of New York Canals* said this about the early years of the Delaware and Hudson Canal Company:

> "During the next decade (1834–1844) the managers struggled with varying fortunes and persistent efforts to place the affairs of the company on a firm financial basis. Manufacturers and users of steam power were slow to appreciate the qualities of Lackawanna anthracite for their purposes. Bitter opposition was encountered from older and better established rivals, who contested every inch of the field, endeavoring to disparage the quality of their product and to discredit their motives. The contest was carried even into the financial arena of Wall Street and speculative assaults were at times made upon the capital stock of the company, which caused its owners anxiety and embarrassment. Combinations of miners, laborers, strikes, and 'turn-out' began to be noticed. On two occasions the business of the season was limited by an epidemic of cholera which broke out along the line. Shipments of coal, however, steadily increased with the widening of their market."

The "widening of their market" was not so much a natural development as it was the result of earnest and persistent efforts on the part of the company to introduce the product of the mines to public use and favor.

For seventy years, from 1829 to 1899, the Delaware and Hudson Canal was a dominant factor in the development of the anthracite mines of the Lackawanna and Wyoming Valleys. Without transportation to market, the coal of the Wyoming region was practically worthless. This canal provided the means necessary to give it value.

However, the annual report of the company for 1898 stated that the cost of the canal had been charged off in that year and no longer stood as an asset on the company books. The progress of steam railroads had caused the canal to outlive its usefulness. On April 28, 1899, the State of New York, by legislative action, authorized the manager to lease, sell, or discontinue use of the canal. The legislature also authorized the change of the corporate name to the Delaware and Hudson Company. The company sold the canal between Honesdale and Rondout to the Cornell Steamboat Company for $10,000.

While the canals already described made anthracite from the three chief producing districts available to the cities along the Atlantic seaboard, they did not afford an outlet to the country adjacent to the Susquehanna River on the western side. As early as 1791, the Pennsylvania Legislature began investigating ways of improving transportation on that river. However, it took several decades for the North Branch Canal to fulfill the promise of the Susquehanna as a transportation highway. The North Branch Canal extended from Northumberland to Nanticoke, a distance of 67 miles. Throughout its length it ran parallel to the Susquehanna River.

Ground was broken for the North Branch Canal on July 4, 1828, at Berwick. The first boat to be used on the

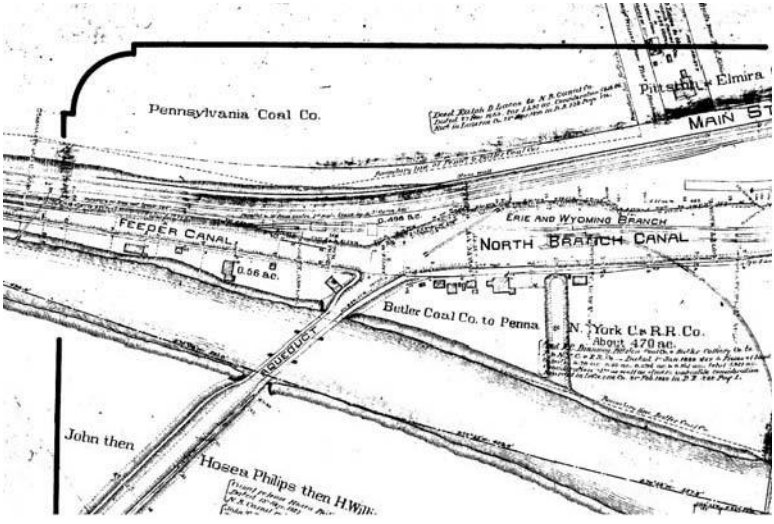
canal was the *Wyoming*. At Nanticoke, the boat took on ten tons of coal and other merchandise and proceeded on the first direct trip from this region to Philadelphia. However, as the canal filled with water very slowly, the *Wyoming* did not pass through it on this first trip, but was passed through a chute at the Nanticoke dam and floated down the Susquehanna division of the Pennsylvania Canal, proceeding through the Union and Essex Canal to Philadelphia. On the return trip, this pioneer boat from the "back country" was frozen in the ice at New Buffalo, and her cargo, consisting of fifteen tons of merchandise, was drawn on sleds to Wilkes-Barre.

In 1834, the *Luzerne*, the second boat to be launched on the canal, made the complete trip from Wilkes-Barre to Philadelphia. Today it is almost impossible to appreciate the significance of these events to the inhabitants of those times in a region that was almost inaccessible until the coming of the canal.

The Wyoming extension of the North Branch Canal to Pittston was completed, and two years later the Tioga Branch was begun, to connect with the New York State system of inland waterways. This canal not only carried to market the products of the forest, farm, and mine, but it provided means of social recreation for the people along its route. Long before the coming of passenger trains, the canals were a favorite means of transportation, much more comfortable than wagon or stagecoach. Many a picnic or Sunday excursion party could be seen enjoying the scenery from the deck of a packet boat headed down the canal.

Despite the advantages of the canals, and indeed their necessity in the beginning, this mode of transportation

had many drawbacks. For about one-fourth of the year the canals were icebound. With the coming of spring the melting ice and snows, together with the spring freshets, frequently resulted in damaging floods which caused heavy expenses for repair and dredging as well as tedious traffic delays. Then, in the summer months, there was often an insufficiency of canal water due to the difficulty of impounding enough water to insure an adequate flow. Year-round, canal traffic moved slowly. During the daytime hours, horse-drawn boats moved at a slow pace, and night movement of boats was impossible. Further delays occurred in the passage of locks.

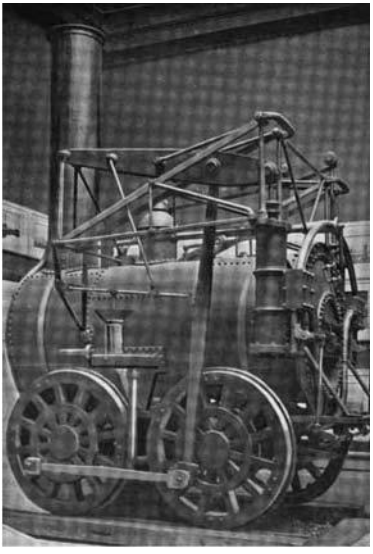


North Branch Canal

Canal links Northumberland with the Erie Canal in New York. Shown is the intersection of the North Branch Canal feeder and aqueduct across the Lackawanna River near the Pittston Junction

THE ANTHRACITE RAILROADS

The first practical steam locomotive was used in the coal mining operations of England. The first railroad locomotive to be operated in the United States was the *Stourbridge Lion*, employed by the Delaware and Hudson Canal Company as part of the company's coal mining operations. The founders of the anthracite industry in northeastern Pennsylvania were quick to appreciate the advantages of rail transportation, seeing in it the solution to one of their main problems getting their product to market.



Stourbridge Lion

The first phase of the Wurts brothers' plan to supply New York with the coal of the Wyoming and Lackawanna Valleys was the building of the canal from Honesdale to Rondout. The second phase was the gravity railroad from the mines near Carbondale to the canal at Honesdale. This railroad was the first on which a steam locomotive was used in the United States. The *Stourbridge Lion* was purchased from the Foster, Rastrick Company for $2,914.90. The exact date of the arrival of the *Stourbridge Lion* at Honesdale is not known, although it is believed to have been around July 23, 1829. On August 8, 1829, Horatio Allen, an engineer of the Delaware and Hudson Canal Company, drove the small locomotive up to Seeleyville and returned to Honesdale by reversing the engine. He stated later that, before starting the engine, the general opinion of the bystanders was that either the road would break down under the weight, or, if the curve was reached in safety, the locomotive would not follow it upon the track. Allen's decision to travel alone was formed in order not to expose the life of more than one person to any danger that might actually exist.

The line over which this historic run took place was straight for about six hundred feet and parallel with the canal, crossing the Lackawaxen Creek by means of a trestle thirty feet high, on a curve nearly one-fourth of a mile long, having a radius of seven hundred and fifty feet. The track then continued in almost a straight line into the forest. The road was built with rails of hemlock stringer, six inches by twelve inches, set on edge, and of twenty and thirty foot lengths, held together by crossties at intervals of ten and fifteen feet, supported on posts set in broken stone or on stone piers. The running surface of the rails was protected by wrought-iron straps, two and

one-half inches wide, half an inch thick, and about fifteen and one-half feet long, fastened to the wooden rail by wood screws.

On September 9, 1829, the *Stourbridge Lion* made another run over this track. After this second trial run, it was removed from the rails and stored alongside the track. For the winter months it was given a rough covering of boards to protect it from the weather, and it remained housed in this crude manner until about 1849. It was then taken to Carbondale, where the boiler was put into use in the company's shop, and many of the other parts were also adapted for new uses. They remained in this service for more than twenty years until replaced by machines of higher power. The original boiler eventually found its way to the Smithsonian Institution in Washington DC, where the locomotive stands, partially reconstructed.

It is significant to note that the first locomotive operated in the Western Hemisphere secured its power from "Lackawanna Anthracite," and that it was not imported primarily for the purpose of passenger or freight service, but solely to assist in the transportation of anthracite from mines to market. And, although the *Stourbridge Lion* and the other three locomotives purchased by the Delaware and Hudson Canal Company in 1828 were never actually used to transport coal, the purpose of their being brought to America loses none of its significance. In a few short years, the sound of the locomotive and its shrill whistle was heard throughout the anthracite region.

In 1848 the Pennsylvania Coal Company began the construction of a gravity road from Pittston to Hawley, where it connected with the Delaware and Hudson

Canal. This road, forty-seven miles long, was completed in 1850. It had a working capacity of one-and-a-half million tons per year. The cars were drawn up the mountain by a series of stationary steam engines and then allowed to run down the inclines by gravity, at a speed of about twelve miles per hour. It was stated that no railroad entering the valley made less noise and that none earned as much as this one did—more than ten percent of its capital for a number of years.

No. 6 PENNSYLVANIA COAL COMPANY'S GRAVITY RAILROAD, 1879.

The Delaware, Lackawanna, and Western Railroad took many years to form. As early as 1819, Henry Drinker advocated a plan to connect the Susquehanna River at Pittston with the Delaware River at Water Gap by means

of a railway running up the Lackawanna to the mouth of Roaring Brook, then up to Lake Henry. He received a charter for the formation of the Susquehanna and Delaware Canal and Railroad Company. The road was to be seventy miles in length. Construction began in the spring of 1851 and was completed by that October.

In April 1851, the company name was changed to the Lackawanna and Western Railroad Company. (The Delaware and Cobb's Gap Railroad Company had been formed in 1849 to run from the Water Gap to some point on the Lackawanna near Cobb's Gap.) By an act of the State Legislature in 1853, the consolidation of the Delaware, Lackawanna, and Western Railroad Company was approved.

The southern division, running from Scranton to the Delaware River, opened on May 27, 1856. By an arrangement with the Central Railroad of New Jersey, an all-rail connection with tidewater was made. This division was built with the utmost care, and for those days represented a high degree of engineering skill. It was a double-track road, and at two points short tunnels were provided to avoid the construction of high, long bridges.

The northern division connected at Great Bend with the Erie Railroad, over which its freight was able to pass both east and west. Colonel Scranton, representing the interests of the iron-makers of Scranton, wanted to establish communication from the iron works northward to the Great Lakes by a locomotive railroad line. He was the principal promoter of such a road which was begun in 1850. By 1869, by leasing the Oswego and Syracuse Railroad, another outlet to the Great Lakes was obtained.

The acquisition of the Lackawanna and Bloomsburg Railroad in 1873 extended the system from Scranton to Northumberland and afforded access to the coal fields lying to the south.

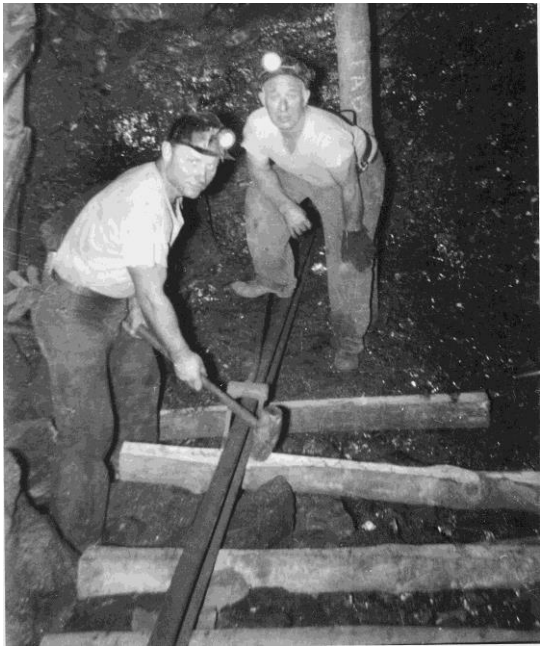
With the opening of the railroad in 1851, the company began to mine anthracite and continued to do so until September 1, 1921, at which time its coal properties were transferred to the Glen Alden Coal Company, which has since continued to operate them.

THE MINE ITSELF

Over time, people developed and employed various methods of reaching the coal they sought. Their techniques depended upon physical conditions, such as the depth of beds below the surface, degree of inclination of the coal, topography of adjacent surfaces, and so on.

Where the coal-bed outcropped on a hillside or in a gulley, an opening may have been driven directly into the coal at a slight upward inclination to permit natural drainage. Such an opening was known as a drift. In most cases artificial support by means of timbering is not necessary to keep such a passageway open. (The purpose of timbering in the mines is not to support the weight of the overlying strata. This weight is supported by solid pillars of coal, left in the mines during preliminary operations. Where the roof rock or coal is friable, and pieces may become detached and fall, timber sets are installed. These consist of a heavy cross member or "collar" supported by uprights or "legs." Should the roof rock be badly broken, it is necessary to install many such timber sets at short intervals, and in some instances, to protect the space between the timber sets by smaller timbers, known as forepoling or lagging, between the timbers and the rock to hold up small pieces of rock which may flake from the roof or sides.)

Steel tracks were laid on ties on the floor of the coal-bed, on which mine cars were hauled by mules or electric locomotives.

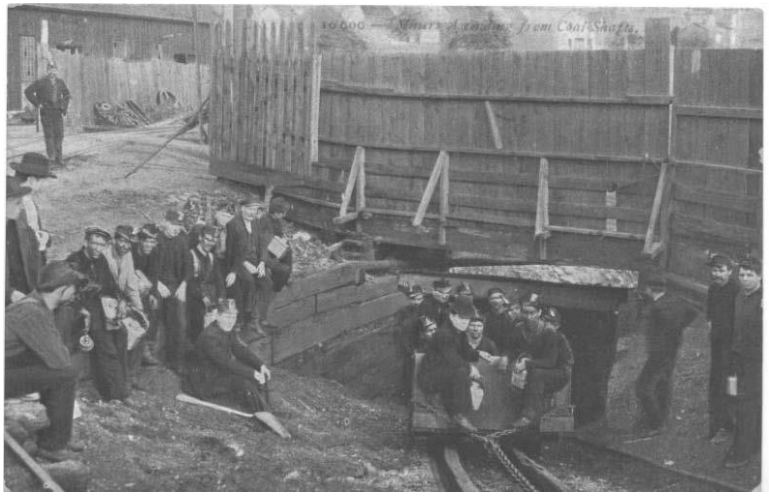


Laying tracks

The drift opening was one of the earliest and cheapest methods of developing a mine. As the opening was being made, coal was secured and there was little expense for drainage because any water encountered flowed out of the opening by gravity. As the drift method could be used only where the coal-bed sloped upward from the adjacent surface, and the uppermost beds has been worked since the earliest days of the industry, however, the production of anthracite from drifts soon ceased.

Tunnels were driven horizontally, or nearly so, through beds of rock and coal with only one or no opening to the surface. As the tunnel penetrated the coal-bed, other passageways were driven from it, usually at a slight inclination to facilitate the movement of loaded cars.

A slope was driven from the outcrop in the coal-bed itself, following a downward course. Sometimes slopes were driven partly through soil and partly through rock, and may have penetrated several beds of coal. Occasionally a slope was driven entirely in rock and was then known as a "rock slope." Slopes were driven entirely within the mines, with no direct opening to the surface, and followed the floor of the coal-bed downward. When driven through rock, little timbering was usually necessary.

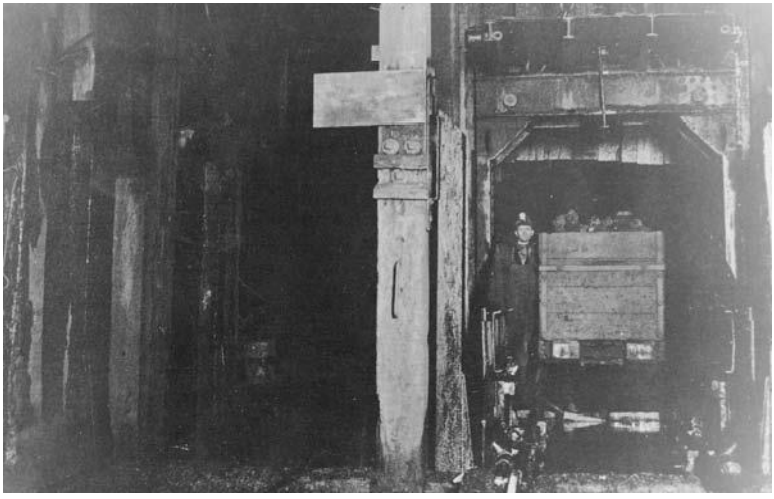


Slope opening

A plane was similar to a slope in the interior of a mine, except that it was driven upward in the coal-bed itself or through rock to provide a main artery of transportation from one part of a mine to another. The term "plane" referred to a road down which the loaded cars traveled, as opposed to a "slope" up which the loaded cars were

hauled. These mine cars were moved on slopes and planes by heavy cables or ropes, operated mechanically.

By far the largest proportion of anthracite mining was done around a shaft. This was a vertical opening from the surface, penetrating one or more beds and intervening rock layers. A typical shaft had two compartments: one through which the loaded mine cars were brought to the surface on cages, and another in which empty cars were lowered in the same manner.



Shaft opening underground

A shaft "cage" consisted of a platform with an iron guard rail and a steel canopy, the latter affording miners protection against debris that might fall as the men were raised or lowered through the shaft. When coal was being hoisted in a shaft, empty cars were lowered in one compartment up which air was pumped from the workings. A small additional compartment was also provided for pipelines, signal lines, electric cables, and

so on. The cages were guided up and down the shaft by heavy timbers that acted like the guide rails in an elevator. Safety devices were provided to prevent the cage from falling in the event of a failure of the hoisting cables.

At the head of the shaft, a derrick was erected. On its top were large, grooved sheave wheels, over which ran strong wire cables attached to the cages. Power was furnished by steam or electric engines located in an adjacent building.

When a shaft penetrated a number of coal-beds, as was usual in the anthracite region, several landings were provided between the top and bottom of the shaft, from which the coal could be hoisted in cars to the surface. A "landing" was an immediate stop in the shaft, comparable to the floors in a building served by an elevator.

At the bottom of most shafts was a sump into which mine water drained from the workings and was pumped up the shaft to the surface.

There were four distinctive methods of mining in the anthracite fields, the type used at a particular operation depending upon physical conditions: stripping; longwall mining; chute or "pitch" mining; and chamber-and-pillar mining. Room-and-pillar mining was quite generally followed in the Northern Field, where the coal-beds were flat. Passages or gangways served as the main transportation roads of the mines. They were driven at intervals and split the workable area into sections. The roadways were made as straight as possible to avoid any curves in the track and to facilitate the circulation of air.

Some gangways required little support, but in those where the roof was shaky, timber, steel, or concrete was used to add support. Thirty feet from the main gangway, an airway was driven to provide a return course for the ventilating currents which entered by the main gangway. Both the gangway and airway were penetrated at intervals of about sixty feet by "crosscuts" or "headings" to facilitate air circulation.

The miners' working places (chambers) were driven at specified intervals, with solid pillars of coal of uniform width left standing between them to support the roof. These pillars were almost one-and-a-half times the width of the working place. The height of the chamber varied from two feet to more than twenty feet, according to the thickness of the coal-bed.

As work progressed, the miner would stand props for the support of the roof. At intervals of fifty feet, a passageway was made at right angles to connect with the adjoining workplace to facilitate ventilation, allowing fresh air to be directed to the working face of each chamber. Each chamber was worked by two men—the miner and his laborer. The miner was responsible for the safety of the chamber and for the direction of the work. The laborer served as his assistant.

After a series of working places had been driven for a distance of about 250 feet or more, a single gangway, the "counter," was driven obliquely from the main gangway until it cut across the extremity of the working places and then continued parallel with the main gangway. It was about 12 feet wide and its purpose was to provide a shorter distance for hauling in the chambers. Loaded cars

could be assembled on this secondary road to be taken from there to the main haulage road.

There were three classifications of miners: the contract miner, the consideration miner, and the company miner. The contract miner worked on a piecework basis, being paid a fixed rate per mine car or per ton, or in some cases, per lineal yard. Under abnormal conditions, such as a decrease in the thickness of the coal and an undue increase in the amount of rock to be handled, it was impossible for the contract miner to earn a fair day's wage. In that case, he might be placed on a "consideration" basis and paid a fixed daily or hourly rate so long as the bad conditions continued. Company miners were paid on an hourly basis and were employed to do various kinds of work of a general mining nature: blasting, driving gangways, loading and unloading the cages, and so on. Most of the anthracite was mined by the contract miners.

For the most part, the miner was on his own. While the foreman was in charge of the general supervision of the mine, particularly involved with the matters of safety, each miner controlled his own chamber. This situation undoubtedly contributed to the spirit of independence and self-reliance characteristic of the anthracite miner who was quick to resent any real or fancied infringement of his rights. On this note, therefore, the matter of labor relations was a delicate operation.

The actual mining of the coal called for the miner to drill holes in the face of the coal, the number and depth of which depended upon the character of the particular bed, and to place inside the holes explosive charges. Hand drills, compressed air drills (jackhammers), or electric

augers were used to drill the holes. The explosives commonly used were black powder, pellet powder, or the so-called "permissible" explosives (eight-inch sticks of ammonium nitrate, with an explosive velocity between that of black powder and dynamite). Dynamite was rarely used because of its shattering effect. The miner was supplied with the powder in a paper tube which he cut to a desired length.

The edges were crimped to form a cartridge that was pushed into the drilled hole with a slender copper-tipped steel rod (the "miner's needle"). While the needle was still in the hole, the space around it was firmly tamped with damp dust from the floor by a wooden tamping stick. The needle was then carefully withdrawn, leaving a clear space from the hole opening to the charge. A lighted squib was inserted which, about one minute later, shot to the back of the hole and detonated the charge.

Practically all of the companies had a rule that not more than one hole could be fired at one time, so that the men would not become confused as to how many of their charges exploded and reenter the chamber to be killed by a last, forgotten charge. The miner eager to finish his work sometimes fired several at once, though—a practice which frequently resulted in a bad accident.

When a more powerful explosive like dynamite was used, a fuse and cap were employed to set off the charge. The fuse was a train of powder protected by three layers of protective wrapping. The cap was a copper receptacle about one-and-a-half inches long, containing compressed fulminate of mercury at the bottom. The fuse was cut squarely across and inserted into the open end of the cap, in direct contact with the fulminate of mercury. The

edges of the cap were then crimped securely around the fuse. Both the cap and fuse were inserted in a hole made in the dynamite with a wooden stick and securely tied. The dynamite, cap, and fuse were pushed to the back of the drilled hole in the face, with the fuse extending beyond the opening. When the fuse was lit, the miners went out to the gangway to wait for the explosion. The miner's laborer was prohibited by law from preparing or firing explosives. However, it was his job to clear the area of workers when a blast was set up.

In later years the use of electric squibs became very popular. This squib is placed in the powder and pushed to the back of the drilled hole, with its wires attached to another wire leading to a battery located at a safe distance from the face, usually in a cross-cut. After the hole has been firmly tamped and the chamber cleared, the miner connects the wires to the battery and operates the plunger which generates a high-tension electric current and explodes the charge. The increased use of electric firing methods largely contributed to safety in blasting operations in anthracite mines.

CONDITIONS AND ABUSE IN THE MINES

One of the worst dangers of mining—though one that is seldom considered by outsiders—was the accumulation of gas in the mines. Different gases came from several sources. "White damp" was carbon monoxide generated by the slow combustion of carbon materials in the low air supply deep within a mine and was also present in the afterdamp. It was a suffocating gas that, even in very small amounts, could kill a miner within a few minutes. "Afterdamp" was the mixture of poisonous gases remaining in the mine after an explosion or fire: carbon monoxide, nitrogen, and carbonic acid were its fatal elements. Meanwhile, "blackdamp" was the carbon dioxide accumulated in the chambers from the breathing of the men and animals and the mine fires. Without sufficient ventilation, it too could suffocate a worker who remained in it long enough. "Firedamp" was the most dangerous. It was the methane gas contained in pockets within the coal vein itself. Large quantities could be freed into the chamber air as the coal was mined. A spark or open flame could set off a major explosion of this air/methane mixture. But contrary to popular belief, not all mines contained dangerous quantities of that gas.

The fire boss was employed at those mines where there was the danger of explosive gas buildup. This "boss" would begin his rounds hours before the first shift of miners came to work in the morning. Each chamber had to be checked. The fire boss would raise his safety lamp to the roof where the gases, lighter than normal air, collected. If a blue cap formed over the lamp's flame, the

fire boss knew gas to be present in that chamber. (In the early days of anthracite mining, canaries were used as detection equipment. The bird would be released into the chamber and, if it suffocated, the fire boss would then know that the chamber was unsafe.) A barricade was placed before the entrance of an unworkable chamber until it could be ventilated to drive out the gas. The boss chalked his initials and the date on the face of a chamber he found to be safe, so that the miners would know it was all right to work there that day.

Fire Boss

In some places where the air was bad, but not enough to be closed, the miner and his laborer would rotate—one man shoveling coal into a car while the other sat out on the head road where the air was better. When the worker inside began to get weak or his head began to hurt, he would go outside to rest and the other man would start to load. They would continue to alternate working like this throughout their shift.

The union finally put a stop to this practice by forcing the company to install a small blower on the main road where the air was fresher, with pipes running to the coal faces to give the workers a better air supply. Once again, two men would be able to work at the same time and thus get more work done—a benefit to both the miner and company alike.

BOSSES

The mine foremen, or "bosses," had a difficult job to do. It was their responsibility not only to assign men to their work areas but also to see to the upkeep of the mine and its steady production. And this job was like any other supervisory position: if a miner did not produce, the boss saw to it that he was moved elsewhere or demoted, with an abler man brought in to take his place.

Of course, the bosses had their "stooges." A boss would pick a man he knew he could trust and place him in good production spots. When each stooge checked out for the day, he would report, say, six cars loaded, but the boss would record seven for him; then he would report maybe one set of timber, with the boss marking two sets. This would mean more money in that miner's pay than he was entitled.

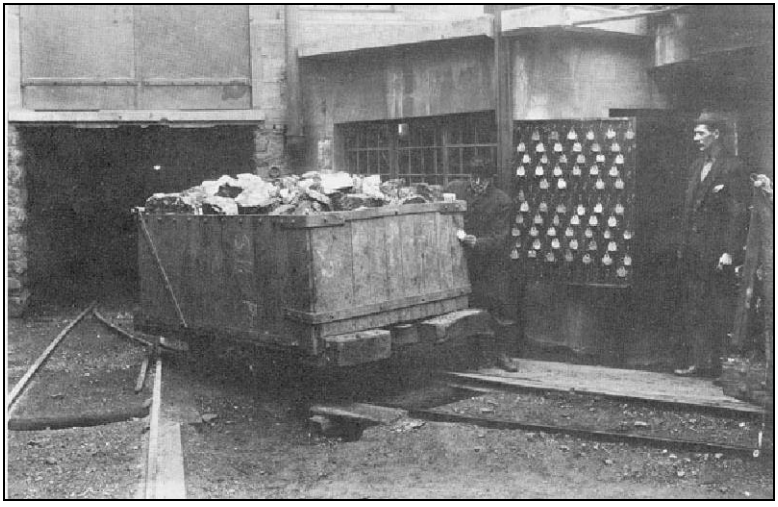
On the day after payday, the boss would make his "rounds." When he came to one of his stooges' working places, he would say something like "Hey, Mike, you got an apple for me?" or "Joe, give me some chewing tobacco," and so on. By the time he had finished, that boss would have his jacket pockets pretty well filled up. At home that evening, in the kitchen, he would sit and carefully pull the core out of the apple and pick out a ten- or twenty-dollar bill; in the tobacco pouch, another bill; and inside a sandwich, still another bill. The tally could be as much as a hundred dollars every two weeks, depending upon how many stooges a boss had and how much extra money he had helped them gain that week. If he had disliked any of his "gifts," the next day he would

make his rounds to tell Mike that the apple was too small, or that he wanted another brand of tobacco next time, or that sandwich could have had a little more lettuce on it, because he likes a lot of lettuce on his sandwiches!

Then there was Fat Stabinsky. He raised his own chickens and kept in his boss's good graces by delivering cleaned chickens and eggs to the boss's home late at night. A few other miners became suspicious; they decided to watch him on payday night. And sure enough, about 1 a.m. that night, Fat arrived at the back door with a package under his arm. The house was dark, so he placed the package against the door. After he left, the miners took the package to the saloon to show everyone what was in it. Inside were two nicely cleaned chickens. Tempers flared and the men decided to show the package to the union officials. There was no law against treating a boss to a couple of chickens, but if you did, you were considered no "union man." The day after that payday, strangely enough, Fat was sent to a "dog hole" to work—apparently the boss was a little upset about not receiving his due. The men found out later that Fat and the boss discussed the incident, realizing that someone must have learned of their deal. They decided to discontinue the chicken business. But, as they say, "you cannot change the spots on a leopard." On the next payday, Fat was seen handing the boss a sandwich with a lot of "lettuce" on it.

The docking boss was strictly a company man. It was his duty to see that as much coal as possible was loaded into the cars. (With the increasing strikes and pay hikes, the companies wanted more coal produced to meet the additional expenses.) This boss would warn the miners

that loading too much refuse or too little coal into the cars might cost them a few days' work or pay. The miner, however, had no way to protect himself against the judgment of the docking boss. If the docking boss told the foreman that a certain man was not filling his cars properly—whether or not that was true—the foreman would believe it and penalize the miner accordingly. It would always be a case of the boss's word against a miner's, but everyone knew which one the company wanted to believe.



Docking Boss

Sometimes a corrupt docking boss would call for more "topping"—as high as ten to twelve inches above the water level of the car. But, because of the unevenness of the track bed, most of this topping would be lost along the road. The boss did not mind this, though, since he would send a few of his henchmen to clean the road by

loading the extra coal on top of a car that had been filled with much rock and poor-quality coal. This he could now pass off as a carload of good coal.

Eventually, after years of complaints, many of the practices of the docking bosses were outlawed in the union contracts.

If the foreman liked you for some reason, he would give you a good place to work—where the air was not so bad or where some extra money could be made. This meant a great deal to a miner, for he never knew when another strike might be called, which, of course, would put a serious dent in his paycheck. The boss might ask for an extra car of coal one day, and if you did not cooperate, the next day you would probably be sent to a dog hole. Dog holes were those parts of a mine where the air was very bad, where water dripped constantly from the roof, or where the coal was mixed with rock that had to be gobbed before the coal could be loaded. This gave a miner fewer cars per day with about twice as much work. Some men would give in while others continued to be stubborn and in no way cooperate with the boss.

In time, the miners would retaliate with some trick to agitate the boss. One favorite stunt was to drill and tamp a blasting hold but to leave the firing cap out; when there would be no blast, a misfire would be called and the area evacuated. The chamber would then be barricaded, with the workers either transferred to another place or sent home with partial pay for the day.

Other miners would load their cars first with a layer of rock, then some coal, and again rock, with a topping of coal for a good appearance. Some would throw large

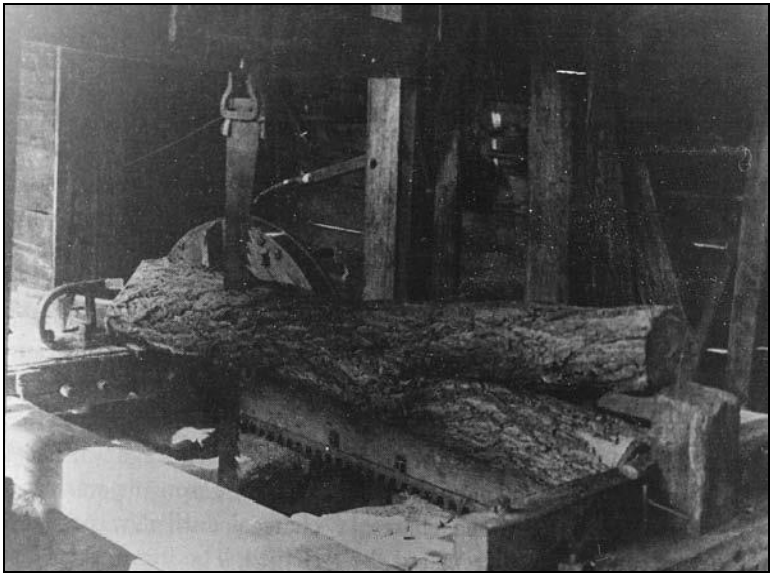
pieces of rock or even timber into the bottom of a car and cover these with coal. The number on the car would then be changed to one belonging to a known stooge so that when the car was dumped the stooge would get in trouble with the docking boss.

TIMBER AND THE PROP YARD

During the early days of the 1800s, the timbering business boomed in the anthracite region. Coal operators were in desperate need of timber for shoring inside the mines and for the tracks of the colliery yards. The companies sent men to contract with farmers and other woodland owners for a timber supply. Logging was done by hand in those days; the timber man depended only upon an axe and a two-man saw. Both were sharpened by hand and kept in good condition at all times. First, the logger would build a loading platform the height of his wagon. Then, after pulling the wagon up to the platform, he could unhitch his team and take them into the forest to drag out the cut trees. Each piece had to be trimmed to the length required by the company, then rolled onto the wagon. When the wagon was loaded, the timber man

would rest his horses overnight and begin delivery at daybreak. It was a long, slow haul to the mines.

At their prop yards came another hard job, that of unloading the timber onto the docks, where a slanted rollway sent the wood down to mine cars to be sent into the mine. Some tunnels varied in height; therefore, the timber had to vary in length. Each different length had to be sent to the proper location requiring it. When the carpenter in the area received his load, he would notch out two legs and a piece to be set on top of these legs. Out of scrap pieces of wood, he would make wedges to be driven between the top piece and the roof to hold the shoring tightly in place.



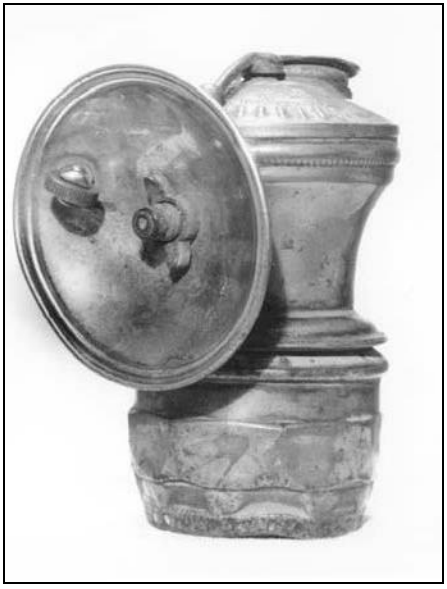
The Up-and-Down Sawmill

The timber was also used for pillar supports in areas where a large amount of coal was being taken out. The

coal had to be replaced by the wooden pillar. This was done by building a square and filling its center with rock to the roof, where it was, again, wedged tightly.

In the twentieth century came the truck, which helped the timber man get to the mines a little faster. But it did not help him in the forest, since the ground there was usually too soft for trucks to drive without becoming bogged down. Timber men still had to rely upon their teams of horses. Rock was later used to build roadbeds for access into the forests. Tractor loaders and chainsaws, along with bigger and better trucks, helped the timber business prosper in the coal fields. Modern sawmills could supply precut shoring for the mines, thus easing the workload of the shaft carpenters. For example, sawmills cut square ties for mine track beds, thereby eliminating the time-consuming notching of the round ties for track laying.

LIGHTS FOR THE MINERS



Carbide Lamp

The coal mines were dark and dangerous. When mine tunnels were first being built in this region around 1800, candles were the only lights worn by miners. As the years passed and various types of oil became available, oil lamps were introduced. This lamp had a body of tin which was filled with a fish or whale oil. A spout protruded from the side of the lamp, through which extended a cotton wick. When the wick was lit, it threw a flickering light along with a large amount of smoke. Although it was an improvement over the candle, it was still an open flame; in the presence of a buildup of fire

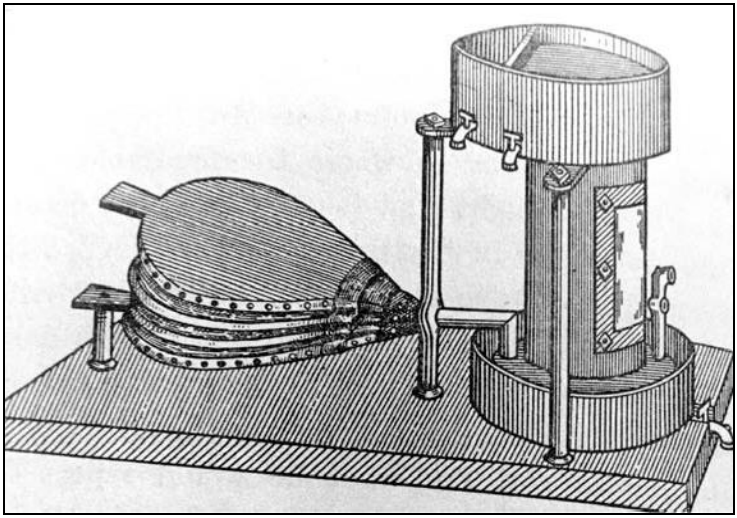
damp somewhere inside the mine, explosions were common, resulting each year in injuries, deaths, and the closing of many mines. (After the safety lamp was invented, many of these mines were reopened, checked for gas, and cleared out by means of air currents set up by brattice work.)

Around 1900, another type of lamp, the carbide lamp, was invented. It consisted of two chambers. The top chamber contained water which was dripped into a bottom compartment containing carbide. When the lever between the two compartments was turned, it released water to the lower section. The more the lever was turned, the more water entered the bottom of the lamp. The water reacted with the carbide to generate carbon dioxide gas. Gas escaping through a nipple on the front of the lamp could then be ignited with a match. A later improvement on the lamp provided a serrated wheel with a flint underneath it, similar to a modern cigarette lighter. When the wheel was turned quickly above the flint, a spark could be produced to ignite the gas. The carbide lamp burned with a bright white light, but it was also an open flame that could cause firedamp explosions.

By the 1930s, Thomas Edison, in collaboration with James T. Jennings, an electrical engineer for the Philadelphia and Reading Coal Company, had developed an electric lamp for miners. It attached to the front of a hardhat and was wired to a battery carried on a miner's back by a belt around his waist.

Long before these modern inventions were introduced in Pennsylvanian mines, other inventors in other countries were experimenting with similar devices. Dr. Reid Clanny of England invented the first safety lantern in

1805, but it was awkward and clumsy. It contained a candle in a chamber, thus insulated from the mine air, and a base containing water, so that the air of the mine had to bubble up through the water to reach the flame. The air was forced into the base by means of a bellows, which required a boy to work it continuously. Then, the air leaving the lamp had to bubble up through a chamber of water at the top of the lamp. The body of the lantern was made of copper or iron with a window of thick glass.



The First Safety Light

Around 1815, an inventor named Sir Humphrey Davy was also experimenting with new safety lanterns. He discovered that if two vessels were filled with explosive gases and connected by a narrow tube, the gas in one chamber could be exploded without transmitting the explosion to the adjoining chamber. This meant that a flame might be burned in a lamp fed with mine air through a narrow opening without fear of exploding the

surrounding air of the mine itself. Davy succeeded in making a lantern which was not only safe but which would also indicate the presence of gas in the atmosphere of the mine by burning the dangerous gas inside the lamp. (Each particular poisonous gas formed a characteristically colored cap on the flame. The miner could judge the percentage of gas present by observing the size of the cap.) Davy later found that the mesh holes of a piece of metallic gauze acted in the same way as the narrow tubing connecting his two vessels. This principle he illustrated with a simple experiment. He held a piece of wire gauze over a Bunsen burner. As the gauze was lifted above the flame, the gas burned above, but not below the metal. The reason for this was that the metallic gauze conducted away the heat so rapidly that the temperature of the gas immediately beneath the gauze was unable to rise to the point of ignition.

George Stephenson, builder of one of the first locomotives, equipped his version of the safety lantern with a glass cylinder, or chimney, fitted to its top. This had a finely perforated metal cap and an inner cylinder of wire gauze. Davy had taken no patent on his lantern. He thought it a sufficient reward that he had invented a means of protecting the miner and allowing the company to mine in areas with gas pockets which could not have previously been worked for fear of explosion. Thus, millions of tons of coal that otherwise would have been abandoned were added to the industry thanks to a small but ingenious invention.

SHIFTING SHANTIES

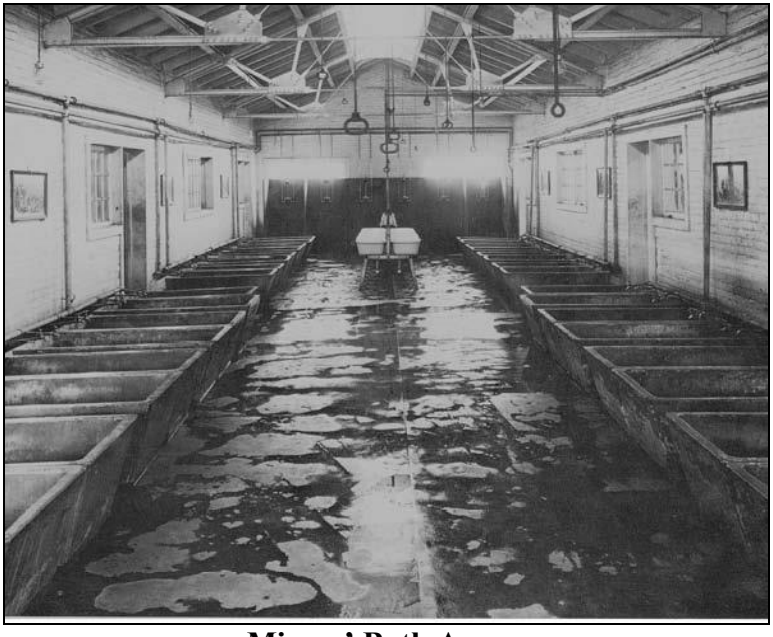
The early miner had no conveniences when it came to washing up—certainly no bathtub or even running water. All washing water came from a nearby creek, hauled in containers by wagon or wheelbarrow to the house, where it was heated on a coal stove and poured into an old round tub. When he had finished washing, the miner just dumped the water in the backyard.

Around 1920, in response to a union demand, some coal companies installed a few showers in locker rooms—"the shifting shanties." The men would wait their turns in line outside after each shift. When they returned to work the next morning, each man would put on the same dirty clothes which he had left in his locker the night before. Some cared little and would wear the same soiled clothes for weeks. They felt that when their pants could "stand up by themselves" that it was finally time to throw them away. Lockers became filthy; some men would clean theirs, but others never would. The janitor could not get into any lockers, since each man had his own lock and key. The result of this filth was that cockroaches infested the shanties. The roaches became so numerous that they were eventually carried home in clothing and lunch pails.

After too many complaints, the companies set up stricter regulations to the effect that the shifting shanties had to be kept cleaner. Later came the basket system, whereby a mesh wire basket, raised or lowered from the floor by a chain, was assigned to each miner. Those who shifted in the morning would open their locks to release the chains, allowing their baskets to drop from the ceiling (which was about twenty feet high). After putting on their work

clothes, they would place their "good clothes" in the basket, raise it and lock the chain. When their shift was over, the miners would shower, exchange the clothes in the baskets, and probably head for a favorite barroom.

You could tell which of the younger men on the nightshift had a date afterward, for they would rush past you in and out of the shower, change clothes, and hurry out. They would still have coal dust and dirt around their eyes, at the corners of noses and mouths, and of course behind their ears. But love is blind—nobody's girlfriend ever mentioned it. Those young men probably did not escape their mothers' notice, though, when they returned home afterwards.



Miners' Bath Area

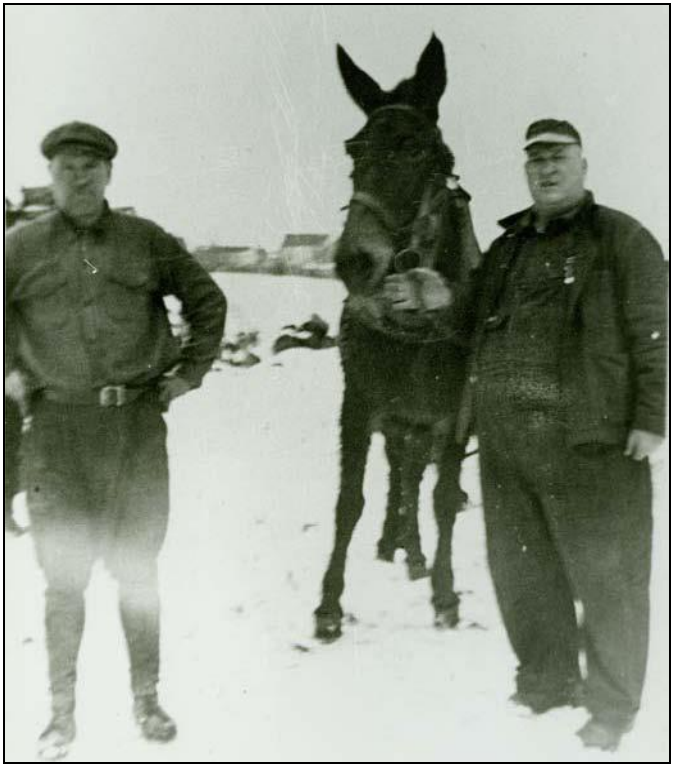
MULES AND MULE BARNS

Transportation was a major problem since the early days of mining. Miners used mine cars for a variety of purposes. Cars had to be loaded with coal to be brought to the foot of the shaft and eventually to the surface. Waste material such as rock and slate also had to be carted out of the mine. Meanwhile, building supplies and tools had to be sent down to the miners below.

In the late 1800s and early 1900s, the only means of such transportation was the mule. The use of mules was a surprisingly complex system. At the surface was a barn for those mules used outside, around the colliery. The barn boss had a few men to help him care for these animals. These men served as part blacksmith, part stable boy, and part veterinarian. Their duties included maintaining the barn; keeping the mules clean, well-fed, and watered; and repairing the harnesses. Hooves were checked, shoes replaced. If an animal accumulated sores or bruises, a decision had to be made as to whether it should be used that day. If not, another mule was put to work in its place until the sores healed.

When a mule was sent out of a shaft to be taken care of, sending down a replacement was quite a comedy. Some animals would walk right onto the cage and be lowered without any problem. But others were either too frightened or stubborn—and probably sensed that they did not belong in any hole in the ground, at least not yet. They would balk and kick until the footmen could force some sort of a blindfold or cover over their heads, then

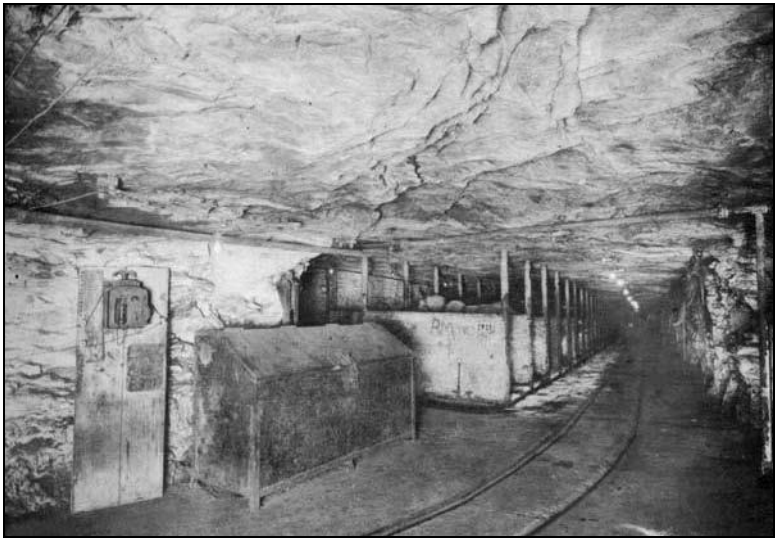
walk them around a bit before leading them onto the cage. Once in the mine, however, the mules quieted down and did their work peacefully.



Barn Boss and Mule Driver, 1935

There was also a mule barn inside the mine itself, which also required a barn boss. At the end of each day he would inspect the animals for any signs of injury or illness, and then send for his assistant to attend to the problems. The barn bosses both inside and outside the mine had to report to work an hour before the miners arrived to ensure that the mules were all well and properly harnessed for work.

Like the miners, the mules were also in constant danger of serious injury in the mines. One such incident was told to me by an old mule driver named Arnold Urban. While driving his team through the mine, he was unaware that a rockslide up ahead had brought down the electric cable onto the track bed. Both mules walked onto the live cable and were electrocuted. Subsequently Arnie was summoned to the colliery office where a hearing was held. He was found guilty of negligence. Twenty-five dollars was deducted from his pay and he was suspended from work without pay for a week.



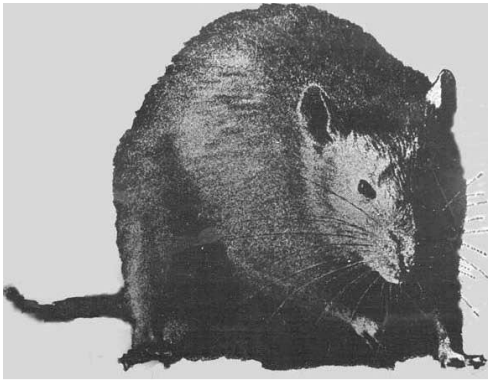
Underground Mule Barn

Mule bosses were very strict with their drivers to assure the wellbeing of their mules. Some drivers could be very abusive to their animals; others would try to "bribe" their animals with apples or candy to get a good day's work out of them. A stubborn mule that refused to cooperate

might be whipped by an impatient driver. If he had no leather whip, a piece of wood or branch would do nicely. Again, if he was caught, it meant time off without pay from work and a fine. But the driver had his work to do and only a certain amount of time in which to do it.

RATS

Many stories have been told about the tremendous number of rats in the mines. Some miners had great respect for them, while others tried to destroy them. Of the many miners I talked to about rats sensing danger, all thought it to be a fact. When a miner would see the rats running, he would run with them. He, no doubt, had heard the stories of rats seen running through a mine just before something awful happened, such as a cave-in or an explosion. Many men would make pets out of the rats by feeding them or leaving food scraps when they were finished with their shifts.



One miner told me a story of an experience he had had: while sitting on his lunchbox for a little rest one day, he saw a few rats scurry by. One of them was squealing and it jumped onto his boot, hesitated, and then ran after the others. The miner felt as though the rat was trying to tell him something. He had also noticed that the rat on his boot was the same one which had always come near him for food. The man had recognized its familiar split ear, which was probably the result of a fight with one of the

other rats. Curiously, the man got up and took a walk in the direction in which the rats had run. When he had gone only a few yards, he heard a thud and felt a concussion of air that almost knocked him over. He went back to see what had happened—about fifty feet from where he had been sitting the roof had collapsed with about ten tons of rock.

Another story told to me concerned a miner and his laborer as they were cutting and preparing timber for shoring. A few rats ran by. The miner felt that something was wrong, but he continued to work. As the men carried the timber into the hole, they noticed a gush of water entering it. They immediately ran for the main road, already moving through water up to their knees. Both men climbed onto the gob to escape the rushing water and stayed up there for three hours wondering what was going on, until the water subsided. Other miners were troubled with the water but, fortunately, it was not that deep and no one was hurt.

Afterwards, the foreman checked to see from where the water had come. Apparently, the roof of an old hole had caved, sending water from the old vein above into his vein. The miners explained to the foreman about the rats running and how they had paid no attention to them. However, the young laborer said that, from then on, he would always run when the rats did.

SOME ACCIDENTS

Long ago, when an accident occurred, the colliery whistle would be blown for the "black wagon." The victims would be brought out of the mine on stretchers, put into the wagon, and taken to a shanty or office nearby. There, they would have to wait until four o'clock for the train to come and take them to a hospital in town, for there were no ambulances in the anthracite fields then. If a victim was already dead, the wagon would take the body to the man's house and dump it on the porch.

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Brakeman Tony Brennan's leg was smashed between two cars. Brought to the foot of the shaft, he was seated on his motor, the stump of his leg wrapped in a rag and a makeshift tourniquet, as the footmen tried to figure out the best way to place him in the cage and get him to the surface. Tony, by the way, took it very well; he joked and kidded with the miners who ran over to the shaft to see what had happened. Once on the surface, he was placed in the shanty to wait for the doctor, who came several hours later. Tony was then transported to the hospital.

The doctor knew that the leg could not be reattached to the stump; he wrapped the disembodied limb, gave it to a young fellow standing nearby, and told him to get rid of it. The youngster ran out of the shanty with it and threw it over a fence into the Zelniks' backyard. Then he ran home. While playing in the yard the next morning, the Zelnik children found the limb. Their mother became very upset when they showed her their find. She covered

it with a burlap bag and waited until her husband came home from work. After she told him what had happened, they agreed to bury the leg behind the mule barn.

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Rudy Orloski was miner at Central Colliery. One night he came home from work with the idea of talking to his wife about allowing their son Rudy to work with him in the mine as his laborer. Mrs. Orloski was very much against this, but the boy managed to convince her. Young Rudy knew times were hard and that an extra paycheck would be of great help. He promised his mother that he would take care of himself and do everything that his father would tell him. One day, Mr. Orloski and his son were blasting coal. They drilled a few holes in the coal face, packed these with dynamite and a fuse, and went out to the main road to wait for the blasts. When they thought that all the charges had fired, the two went back inside. But they apparently had miscounted the number of blasts, because just as they reached the face, another blast occurred, killing both the father and son. This particular accident had a great effect upon the public. As a result, an ordinance was passed that prohibited members of the same family to work together, so that one accident could never again wipe out an entire family.

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As Mrs. Zyzniewski was hanging out the wash one Monday morning, the “black wagon” bought her husband’s body home and dumped it onto their front porch. (He had been killed that morning in a roof fall.) When the neighbors saw this, they ran to the backyard to

get Mrs. Zyzniewski. She came to the front of the house where she saw her husband's body, the sight of which so shocked her that she dropped dead next to him. The neighbors hurriedly tried to cover the bodies and get them into the house before any of the Zyzniewskis' seven small children saw them. The children were taken to a neighboring home while preparations were made and a double funeral held.

Several friends and relatives wanted to each take some of the youngsters, but the children themselves decided to stay together. The oldest girl, who was thirteen at the time, kept the family together through the years until they all had grown up and married.

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All the while Mr. Pokorney and Mr. Chervenka worked together in the mines, Ray Pokorney would talk about saving enough money to send for his wife and son in Germany. After eight years of scrimping and saving, he finally did have enough. He sent the money to his wife and eagerly awaited their arrival. They stayed with a good neighbor until some rooms of their own could be found. But as the weeks went by and Mrs. Pokorney would see her husband come home from work every night tired, black with grime, and coughing up chunks of coal dust, she became very unhappy. One evening she asked if they might go back to Germany. She said she feared that he would not live long working like this. Ray, however, felt that just by being in America they were better off than they could ever have been back in Europe. He also said that, with the new labor unions, working conditions were bound to improve in the mines. And certainly their son would have the opportunity for a

better future here in America. The subject was dropped, and thereafter Ray refused to listen to any more talk about Germany.

About a month later, Ray Pokorney was transferred to a section of the mine where the roof was in bad shape. One day the miner whom he was assisting told him not to go into their section anymore. Its roof was becoming too dangerous and would probably have to be pulled down. Ray thought that it did not look that bad yet, so he went inside to finish loading their coal. The miner went out for his toolbox but decided instead to have some lunch first before going back into the chamber. A little while later he heard the roof fall. When he went back inside, the miner found Ray alive, but pinned under several tons of rock. The miner ran to the neighboring chamber where Chervenka and his laborer were working and asked them to help rescue Pokorney. They managed to free him but he was very badly injured.

At the top of the shaft the "black wagon" came to carry him to the hospital. His wife was summoned. She, of course, became hysterical when she found out how badly he was hurt and began screaming about going back to Germany. Ray had suffered a broken leg and shoulder and had severe internal injuries. But he fought hard to recover. After a four-month stay in the hospital, he was released and sent home on crutches. Ray did not seem to improve after that, however, and in fact, grew weaker. Two months later, pneumonia set in and he died. His wife could not bear to stay in America any longer. She was sorry that she and her husband had ever come to this country in the first place. The neighbors took up a collection among themselves for her and gave her a tearful send-off.

THE HEALEY DROWNING AND THE BUTCHER WAGON

The coal region was pockmarked with the deep cave holes resulting from mining too near the surface. As these holes filled with groundwater, they were actually enjoyed by many children and adults as places to swim during the hot summer months. Sadly, they also brought tragedy to some families, because many children lost their lives in them.

I recall one twelve-year-old boy who drowned in such a hole in our town, while playing baseball one afternoon about twenty years ago. Apparently, he had chased the ball as it rolled down the steep embankment of a pit just beyond their makeshift baseball field, lost his footing, and fell. Since he was not that good a swimmer, he probably could not recover from the deep plunge and get himself to the water surface.

The patch was very disturbed by this particular accident. A couple of men decided to complain to the local coal company to do something about that hole. The company agreed and sent men and equipment to fill in the hole and level the field. These same men started soliciting funds from the neighboring families which enabled them to build a playground on that site in memory of the boy who had lost his life there. They continued to keep up the grounds and also set up swings and rides so that the local children could enjoy themselves safely.

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One morning a neighborhood butcher was making his rounds in his wagon. Suddenly, the pavement gave way beneath him and the wagon fell backwards into the hole, with the butcher still inside and the horse coming down on top of him. Quickly a crowd gathered to see what had happened. The men who came to help the butcher had to figure out a way to get the horse out first, for it was now all tangled in its harness. There was no way the horse could be lifted out. The rescuers decided to go back about twenty feet and dig a trench on a slant down to the animal. After completing this, someone unhitched the horse and led it out of the hole to safety with, happily, no injuries. The men immediately went back down to free the butcher. He was taken to a nearby home, where a doctor was summoned to examine him. He had suffered no fractures but was terribly upset and bruised. Other men at the scene widened the ramp so that a large coal truck could be hooked to the wagon to pull it up to the surface. The hole was filled in, and after a few hours it was just as if nothing had happened on that street—but the experience lived with the butcher for the rest of his days.

DISASTERS

Of the many accidents and disasters that happened throughout the anthracite region, some were caused by neglect on the part of the coal companies, others by the miners themselves. The greatest disaster that the region had ever seen, however, was caused by greed—the greed for coal and the wealth it could provide, with no regard for the conditions and dangers the miners endured in its recovery.

Such major disasters were not frequent, however. People had been mining anthracite for almost two hundred years, producing millions of tons of coal, with relatively few incidents that resulted in catastrophe. But when such a huge accident does occur, it is likely to be enormous and horrifying.

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Breakers in the coal fields were guarded very closely, for it was common to hear of one burning down during the night. (Usually it would be rebuilt at the same location or at one nearby.) But to hear of one struck by lightning was curious. On April 11, 1951, the Packer Breaker in Plains Township, owned by the Duryea Anthracite Company, was hit by lightning with such force that almost the entire structure collapsed. One man missing was later found beneath the tons of coal that came down with the breaker. Another man narrowly escaped injury but was so stunned that he could not say what had happened.

When the lightning struck, it sheared off one of the levels of the breaker. Almost twenty-five feet of the building collapsed on two railroad cars which had been loaded in the colliery. The huge sixteen-by-sixteen-foot yellow pine beams were sheared as if they had been cut with a saw. When the level collapsed, eighty to ninety tons of coal remaining in the chutes, as well as the two shaker chutes, concentrating tables, and other equipment plunged to the ground. One of the cars had contained approximately seventy tons of coal, the other about fifty tons. The cars were flattened by the tremendous weight of equipment and coal.

A steamshovel was brought into the colliery to help clear away the debris. Later, a clam shovel was used to reload the coal into other cars; this was when the missing coal inspector's body was recovered.

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In the early operations of the area, as much coal as possible was mined immediately, with the result that the remaining pillars were smaller than the size favored in standard mining procedure. Furthermore, the pillars were not columnized but were instead staggered (i.e., without reference to the position of pillars in overlying and underlying beds). Under long, continued pressure, the pillars in some areas of the older workings weakened.

To assist in supporting the weight of the overlying strata and to ease the burden on the smaller pillars, the present-day practice is either to build cogs at strategic points in the various beds or to flush the shafts with silt or ash. A cog is a hollow square constructed of heavy timbers from

the floor to the roof of a chamber, and packed as tightly as possible with rock. This serves a similar purpose, although not quite as effectively, as a pillar of solid coal in providing support.

Silting or flushing are terms used to describe the method of hydraulically filling the worked-out chambers with a fine coal dust (silt) or ashes. This material is carried into the spaces to be filled by water through boreholes drilled from the surface. Strong barricades are erected at strategic points inside the shafts, against which the flushed material backs up until the void has become completely filled. The water then drains out and is pumped to the surface. The filling of fine dust or ground ash forms a firmly packed mass which relieves the pillars of considerable weight. Compression caused by the weight of the overlying strata is so great that, later on, passageways can be driven through the flushed material without causing it to run.

Despite precautionary measures, a general movement of the strata sometimes occurs, particularly in places that have not been flushed, causing pillars to fail and roofs to collapse over a large area. This is called a "squeeze." The largest such incident occurred at Carbondale in 1846, killing fourteen men. A squeeze rarely occurs all at once; evidence of an impending squeeze can be noted in increased pressure upon the pillars and timbers. In the early stages of a squeeze, the timbers begin to buckle; the strain forces chunks of coal out of the faces of the pillars.

Old timers said that a sudden stampede of the rats from the workings was a sure sign that a collapse was coming. The men always watch for these signs and will begin to

evacuate the chambers if any are noted. However, sometimes the progress of the squeeze is too rapid and the area too large for all of the men in the vicinity to get out in time. Their exit may also become blocked by heavy falls of rock and coal. Some men might be caught under the fall.

When such a disaster occurs, though, rescue teams are quickly organized—and there is never a shortage of brave volunteers for this dangerous work. The fallen rock and debris must be cleared away immediately to reach the affected area where miners may be trapped. Often miners attempt seemingly hopeless rescues. They know that sometimes people can survive horrific accidents through lucky coincidences. A man may have been pinned under an enormous mass of rock that is prevented from crushing him by a heavy slab wedged between him and the rock, holding up the weight and permitting a little air to circulate. Others may be more fortunate and be only trapped in some open working behind the fallen rock. The rescue crews were familiar with such possibilities, and it is only a matter of time before they manage to clear an access way.

An account of the 1846 squeeze in Carbondale was given by Andrew Bryden, one of the survivors and a leader, along with this father Alexander, of the subsequent rescue effort:

> "The disaster occurred on the twelfth day of January, 1846, at about eight o'clock in the forenoon. The part of the mine in which the cave-in was most serious was on the plane heading at the face of which I was working. We heard the fall: it came in a thunderclap.

We felt the concussion distinctly, and the rush of air occasioned by it put out our lights. I and those who were working with me knew that the fall had come and we thought it better to try immediately to find our way out, although we had no idea that the fall had been so extensive or the calamity so great. We did not doubt but that we should be able to make our way along the faces of the chambers next to the solid coal to an opening at the outcrop; so we lighted our lamps and started.

"We had gone but a little way before we saw the effects of the tremendous rush of air. Loaded cars had been lifted and thrown from the track, and the heavy walls with which the entrances had out the chambers. We began then to believe that the fall had been a very large one; but before we reached the line of it, we met a party of twenty-five men. They were very much frightened and were running toward the face of the heading—the area from which we had just come. They said that the entire mine had caved in, that the fall had extended nearly up to the faces of the chambers along the line of the solid coal, leaving no possible means of escape in the direction we were going, and that the only safe place in the entire section was the place which we were leaving at the face of the heading. This heading having been driven for some distance into the solid coal, the fall could not well reach into the face of it. We were greatly discouraged by

> the news, and we turned back with them to the face of the other heading. We had little hope of being able to get out through the body of the fall—the way in which we did finally escape, for we knew that the mine had been working and that the roof had been breaking down that morning in the lower level. Indeed, we could hear it at that moment, cracking, crashing with a great noise. We felt that the only safe place was at the face of the heading where we were, and most of the party clung close to it."

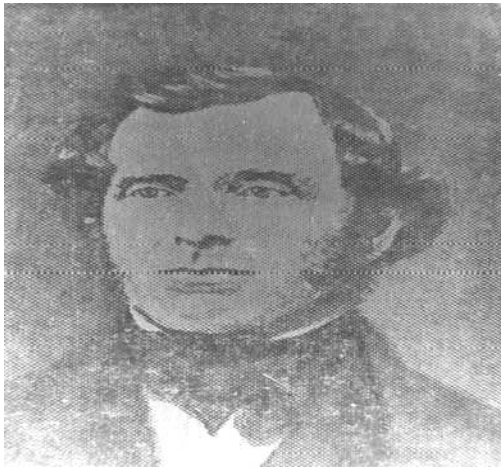
He continued:

> "Some of us would go out occasionally to the last entrance to listen and investigate; but the noise of the still-falling roof was so alarming that no one ventured any farther. After a long time spent thus, waiting, I suggested that we should start out in parties of three or four, so that we should not be in each other's way, and so that all of us should not be exposed to the same particular danger, and try to make our way over the fall. But the majority of the men were too frightened to accede to the proposition; they were determined that we should all remain together. So, when some of us started out, the whole group rushed out after us and followed along until we came to the line of the fall. We had succeeded in picking our way out a short distance through the fallen portion of the mine, when we met my father, Alexander Bryden, coming toward us. He

was the foreman of the mine and was outside when the fall came. But the thunder of it had scarcely ceased before he started in to learn its extent and to rescue, if possible, any of the endangered men. He had made his way over hills of fallen rock, crawled under leaning slabs of slate, and forced his body through apertures scarcely large enough to admit it, and under hanging pieces of roof that crashed down across his path the moment after he had passed. Finally, he came to us. I have no doubt that he was as glad to find us and help as we were to see him. Then, he led us back by the terrible path by which he had come, and brought us back, every one, to a place of safety. He was told that Dennis Farrell was at the face of his chamber, so badly injured in his spine that he could not walk. The miners, in their retreat, had found him lying under a piece of coal. They had rolled it off him, but seeing that he could not walk, they set him up in his chamber and gave him a light and left him there. My father asked if anyone would go with him and help carry Dennis out, but none of them dared to go back—it was too dangerous a journey. So my father made his way back alone through the fallen mine and found the crippled miner. The man was totally helpless; and my father lifted him onto his back and carried him as far as he could. He drew him gently through the low and narrow passages of the fall, climbed with him over hills of broken rock and finally brought him out to where the other

men were. They carried Dennis out to the surface and then a mile further to his home."

Alexander Bryden, born in Ayrshire, Scotland, in 1799, had come to work in the Carbondale mines in November 1842, along with sixty-nine other Scotch and Welch miners. In 1843, he was appointed a foreman and continued in that position until 1852. He died August 20, 1854. His courageous rescue attempt in that great cave-in of January 12 will always keep his name foremost in the history of the anthracite region. He saved the lives of almost all of the fifty miners trapped by the fall; fourteen others lost their lives, while eight men were never found. Such deeds, worthy of being called heroic, are expected when mine disasters occur—and brave men are never lacking to perform them.



Alexander Bryden

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The greatest mine fire in the anthracite region occurred at the Avondale Colliery of Plymouth on September 6, 1869. One hundred and ten men and boys lost their lives. The fire started in a shaft from a furnace at the foot. Since the shaft was the only way out of the mine, the men were trapped. The breaker, built directly over the shaft, burned, and the fire spread to the surrounding buildings. In the end, about half an acre of the colliery was destroyed. The capacity of that breaker was between three and four hundred tons of lump coal and nine hundred tons of prepared coal.

Firefighters from as far as Scranton were summoned. Flames were first discovered shooting out from the top of the head house. However, shortly before, Alexander Weir, the engineer, had been startled by the fire's rushing up the shaft with a sound not unlike that of an explosion. In almost no time, everything combustible in the entire works was in flames.

Hundreds of people gathered at the scene, concerned for the safety of their loved ones who had been working in the mine and the breaker. Mothers and fathers cried out for their sons.

During the early progress of the fire, concern arose for the safety of the houses located on both sides of the hill on which the colliery stood. As a result, all household goods were removed to a safe place. As soon as the fire became visible to the surrounding countryside, people began to flock toward the burning breaker. By noon, the crowd numbered many thousands.

Once the fire was extinguished, the men started to clear the debris around the mouth of the shaft in preparation

for a rescue attempt. A derrick was rigged over the shaft so that the rescuers could descend into the mine, about 200 feet below the surface. A dog and a lighted lantern were first sent down to determine whether it was safe for a human being to descend. As the crowd waited anxiously, the rope was drawn back up. The dog was still alive but the lantern was out. The false hope generated a new idea and a call down into the shaft was believed by some to have been answered from the bottom.

Charles Vartue was the first man to descend. He returned to the surface fifteen minutes later only to report that the shaft was completely blackened and that at least two men would be needed to clear it. Charles Jones and Stephen Evans volunteered for this job and did reach the bottom of the shaft. However, after twenty minutes, gasping for air, they were forced to return to the surface. The next two volunteers to descend, Thomas W. Williams and David Jones, did not return: they were overcome by the black damp accumulating in the shaft. It was then decided that no more could be done until morning, when the mine could be ventilated.

On the third day after the fire, at about 3 a.m., two bodies were located: a stable boss and an eighteen-year-old boy. Sixty-seven more bodies were reached by 6 a.m. Some appeared as if they had quietly slipped away in sleep, while others seemed to have struggled against their fate. These bodies were grouped together in every possible position, according to a rescuer's account of the scene. Once brought to the surface, all of the bodies were identified and delivered to surviving relatives. The rest of the bodies of the one hundred and eight miners plus those of the two rescuers were eventually recovered.

The dead were taken by Lackawanna and Bloomsburg Railroad to Plymouth and Scranton. At 4 p.m. on September 9, two trains—one loaded with about three thousand people and the other with forty-five hundred—headed eastward toward Scranton. The last train carried the coffins. A coroner's inquest determined the cause of death of the one hundred and ten men to be asphyxiation by exhaustion of the atmospheric air and the predominance of sulphuric and carbonic acid gases in the Avondale mine. Among those in attendance at Shupp's Hall that day, September 11, 1869, were acting coroners E.C. Wadham and J.W. Eno.

The Avondale fire left seventy- two women widowed and one hundred and fifty-three children orphaned. Expressions of sympathy poured into the bereaved mining town, and, with them, financial assistance for the affected families. Henderson Gaylord headed a committee to solicit funds for their aid; from all over the United States and Europe contributions poured in to a total of $155,825 in less than a month. That sum was greatly increased by astute investments. The fund was managed by a board of directors for several years until its purpose was accomplished. Each widow was paid $200 a year; each male orphan under fourteen years of age and each female orphan under sixteen years of age received $100 yearly; and those children over those ages who were left fatherless were paid in full $300.

It might be said that this, one of the gravest tragedies to date in the coal industry of northeastern Pennsylvania, did result in changes in the operating procedure for the better protection of the anthracite miners. In 1870, the first standard mine safety laws were enacted: among other things, these laws now prohibit erection of a

breaker directly over a shaft and provide for the maintenance of at least two means of exit from any mine.

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One of the most renowned entrapments of hard coal miners began on Wednesday, April 23, 1879, at the Sugar Notch #10 colliery slope of the Charles Parrish Coal Company. In his report, T.M. Williams, the state mine inspector for the Wilkes-Barre area, stated that seven men were trapped. They were Patrick and James Green, two brothers from Ashley; John Clark, a doorboy from Ashley; William Kinney, a driver from Moffett's Patch; Ernest Riley of Sugar Notch; and Edward Price and Charles Hawkins, co-contractors for a passageway through the #10 workings.

What was so memorable about this incident was the form of sustenance to which they found themselves compelled to resort: mule meat. After seeing that any chance of a rescue was slim after the massive cave-in, the seven men decided that, when the food each had carried in his own dinner can was used up, their only hope for continued existence was to slay the one mule trapped with them as a future source of food. One of the Green brothers struck the animal with a hammer no fewer than seven times before it fell dead.

Young Kinney was said to have cut off the animal's head with an axe, while Hawkins amputated its right leg; on this tasty morsel the entrapped men made their first meal. They used their dinner cans placed over their lamps to cook the meat. It had always been said throughout the coalfields that an operator would prefer having harm befall twenty miners rather than one mule, their most

productive transportation muscle. However, those trapped men were glad to have and even relished the leathery diet which they were fortunate to have had at hand—or rather, "on the hoof"—during their six days of entombment.

Day followed day, mostly spent in prayer or silence. Occasionally there arose some faint hope when someone thought that they could hear the drilling of the rescue team. Thirteen-year-old John Clark cried a little at first for his mother's sake, but he soon grew calmer and was in good spirits until the rescuers came. The men waited quietly, hearing more clearly each hour the sound of the drills, as the mule carcass dwindled bit-by-bit.

Then, about nine o'clock on Monday morning, six days after the cave-in, the rescuers feverishly penetrated a deep barrier and found the missing men seated on chunks of coal, silently eating their mule breakfast. Contractor Hawkins later reported his belief that the trapped miners could probably have lived ten days longer on the food they had had. He thought the mule meat to be rather good, as did most of the others.

On reaching the surface, young Kinney bounded off briskly, jumping over a high colliery fence and never stopping until he reached home, where his elderly mother awaited him with open arms.

The true end to this story came, however, on the following night when the seven appeared in a benefit performance at Wilkes-Barre's Music Hall—twenty-five cents admission. In this remarkable drama, they personally reenacted the events of their entombment, reporting their plans for a possible escape, tasting of the

air for suffocating gases, wall-tapping to attract the rescuers' attention, and their attitudes while praying. All during this performance the theater's lights were dimmed to simulate the darkness of what, miraculously, was not destined to become the tomb of the seven men from Sugar Notch.

The last survivor of the Sugar Notch disaster was William Kinney, the driver. He died on November 14, 1947, at the age of eighty-eight. As a result of his remarkable experience, he became interested in local mining history and was a frequent visitor to the Wyoming Historical and Geological Society [today the Luzerne County Historical Society] in Wilkes-Barre, where he repeated the story of his entrapment to Miss Ernestine Kaehlin, head historian of the society at the time.

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The first mine disaster in the region in which the bodies of the victims were never recovered occurred in the Twin Shaft of the Newton Coal Company, northwest of Main and Union Streets in Pittston, on Sunday, June 28, 1896. Fifty-eight men were buried in the disaster. It was the most costly tragedy in terms of human life to happen in upper Luzerne County since the Avondale fire. Every mine official below the rank of general manager in that company lost his life that day.

The original shaft at this site had been built by Bowkley Brothers in 1856. The mine had begun operations as early as 1865 for Murcer and Company. At the time of the disaster in 1896, the mine's output was fifteen hundred tons a day for the Newton Company.

Some previous mishaps and alterations preceded the disaster. A severe fall of roof in September 1871 had resulted in no injuries to any employees. In 1872, two shafts were extended to the checker vein and to the Pittston vein. Work commenced on the new Twin Shaft on March 26, 1880.

On the fateful morning of June 28, 1896, three heavy, dull-sounding explosions shook the surrounding homes around 3 a.m. Within a few minutes, fire alarms were sounded and the word spread of a "squeeze." By the time John B. Law, general manager of the Newton Coal Company, and several superintendents arrived at the scene, supporting pillars under the west bank of the Lackawanna River had succumbed to the great weight of rock and coal. Their collapse entrapped the miners working in the basin of the sixth vein, five hundred feet down and fifteen hundred feet from the foot of the shaft.

Several days before, it had been discovered that the mine was "working," a term used among miners to indicate the breaking or loosening of rock and timber. Crews had worked hurriedly under the guidance of experienced foremen to prop up the crush which threatened to close the main gangway at the bottom of #3 slope. They believed the danger had passed. However, the crush continued.

The mine owners wanted the several hundred dollars' worth of machinery removed from the danger zone. On the day before the disaster, John McGraw of Duryea had found it necessary to saw through a jammed door to safety. Superintendent Michael Langan called all available men together on Saturday night and went down

with them into the mine to shore up the roof at the bottom of the Red Ash vein. There they worked until the fall of the roof trapped them. A few had come out earlier when they realized the danger of an impending squeeze. Of those remaining, only two miners managed to escape: Frank Sheridan and John Riker, both of whom were working in the area between the foot of the shaft and the place where the others were timbering. (Riker died in an accident in another mine in 1898.)

Jacob Ruoff was the only member of the Twin Shaft machinist crew to survive. On the night of the squeeze, the messenger sent to summon him mistook the Ruoff residence with that of Jacob Kern next door. When the messenger called out that Jacob was wanted at work, Kern thought that he was being paged. So the wrong man went in to work that night.

In another instance, the messenger who went to summon John Kehoe of Searle Street was told that Kehoe had left earlier that evening to attend a cockfight in Duryea and was not expected back until very late. Upon his return, Kehoe immediately went to the mine and found a scene of disaster. He worked with the rescue crew only to learn that among those trapped were his father; his brother, Frank; and an uncle, Thomas Barrett. Kehoe and Billy Lee, who also had a close relative trapped by the fall, found a small hole in the debris and attempted to tunnel through it toward the victims. A foreman discovered the two men in this hazardous effort and immediately fired them.

It would be impossible to give an adequate idea of the danger that attended the attempt to recover those workers, alive or dead. The pillars were crushing within

fifty feet of the bottom of the shaft. There was no way to reach the miners because of the crushing of the roof all around them.

Officials of the company had deemed it advisable to convene a conference at Pittston on July 24 of all the mine inspectors in the region, as well as all of the supervisors of the local coal companies, to consider the feasibility of continuing the rescue operations. It was a notable assembly of anthracite-mining experts. Following the meeting, a statement was made that, after a thorough examination of the mines and maps of the Twin Shaft property, the unanimous opinion of the committee was that they were surprised at the progress made, taking into consideration the condition of the mine, the continuance of the squeeze, the presence of an enormous amount of gas, and the fact that no explosives could be used in executing the rescue.

Their judgment was that everything possible had been and would continue to be done to reach the trapped men. The officials of the Newton Company said that they were anxious to receive from the committee any suggestions concerning the matter and expressed a willingness to expend any amount of money necessary to recover the bodies. However, deep regret was voiced by all present at the apparent impossibility of finding the men.

Rescue work proceeded vigorously day and night in the slope until July 29, at which time the rescuers refused to continue. The timbers kept settling and there was grave danger that the rock above the timber might give way.

Meanwhile, on July 1, 1896, Governor Daniel Hastings appointed state mine inspectors Edward Roderick,

William Stein, and Edward Brennan to a commission to investigate the Twin Shaft tragedy. They convened on July 8 in Pittston and submitted a report to the governor by September 24. They recommended certain safety regulations be enacted in Pennsylvania's anthracite-mining laws.

In addition, a relief fund was hastily organized for the benefit of the 31 widows and the 101 orphans of the Twin Shaft disaster. Approximately $80,000 was contributed from all over the nation.

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An everyday occurrence at the Baltimore Tunnel #5 in the East End section of Wilkes-Barre was going down into the mine in a car which also carried the day's load of blasting powder. On June 5, 1919, for some unknown reason, one of the cars blew up, killing ninety-two miners onboard. Horrible scenes were witnessed at the tunnel entrance as the bodies were brought to the surface, many of them disfigured beyond recognition.

It was presumed that ignition of the powder was caused by its contact, at some point, with the electric trolley wire. The coroner's jury failed to find the exact cause. However, the jury recommended that, thereafter, man and powder should not be taken into the mine together. In addition, mine owners and operators would enforce better safeguards for transporting dynamite and revise mine codes to better protect the safety of the mine workers.

This was an instance in which greed caused tragedy. The company would have had to spend additional time and

money to send the dynamite down the shaft in a separate car. It was cheaper to use the same car that the men used—the ultimate price would only be paid by widows and orphans.

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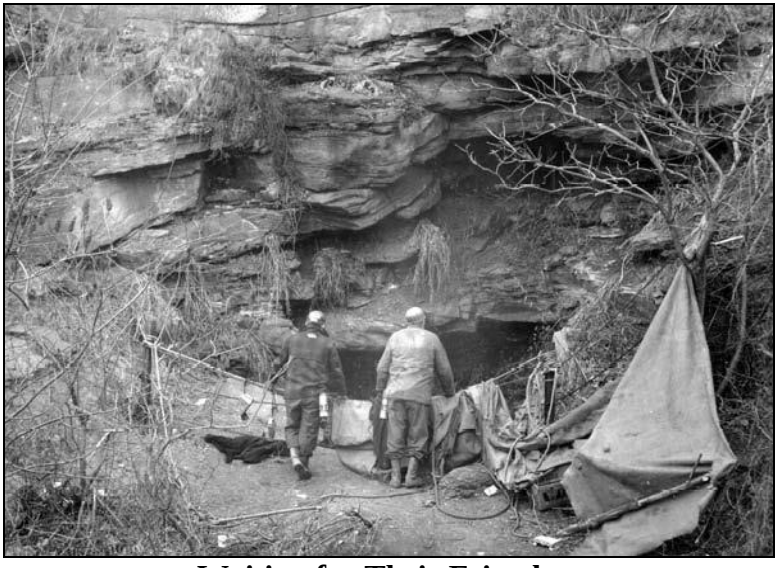


Waiting for Their Friends

The final horror came on January 22, 1959. On that day, eighty-two men, betrayed by both their employer and union leaders, were working in the Knox Mine Company's operation at Port Griffith. This mine was directly under the bed of the ice-filled Susquehanna River, in violation of state safety standards. The river broke through the roof, trapping forty-two men. The break-in poured billions of gallons of water and ice into the Knox mine. From there, the water eventually gushed into the honeycombed system of chambers that spread down the river to Nanticoke, destroying the future of

deep mining in the Wyoming Valley.

The company had been driving in six places toward the riverbed in fourteen feet of coal, under the direction of Bill Receski, the mine foreman. And although it was generally assumed that there was plenty of roof between the riverbed and the mine, operations were stopped at one point in four of those locations for fear of coming too close to the surface.

The foreman decided to continue work in one place which was believed to be farthest below the river and to drive a slope from the other remaining place down to the lower vein, the May shaft, thus creating another opening through which coal or supplies could be hauled from the other slope. This would save much time and money each day and speed up operations, since ordinarily there was a forty-five minute run of winding, uneven road to be traveled when sending supplies to the May.

On the cold Tuesday morning of January 22, 1959, with the river filled with large ice chunks, ninety-six men hurried inside the mine to begin the day shift. Forty-two of these men went into either the River slope or the May shaft, which were on two different levels connected by the newly constructed slope and some older workings where several roof-falls had already occurred.

At one point during the morning's routine work, the miners heard water gushing into the mine. Sam Altieri investigated and ran back, shouting to the men to get out, for the river had broken through. He could not reach all of the men to warn them. He ran to the motor barn to change his clothes and was never seen again. Word then reached motorman Louis Randazzo and brakeman Joe

Kiselvich, who immediately drove their motor as far as they could through the mine, trying to warn as many men as possible to get out.

Along the way they met the surveyor Joe Stella, who still had his maps with him and was familiar with the mine's layout. They told him quickly what had happened, at which point, he took over and instructed all the men to follow him. As they approached the main road, they saw that it was gushing with water and ice. Joe ordered the men back through some old workings. A few hundred feet along the way, they were again faced with water and ice. Some other routes proved just as useless. Exits were rapidly being closed off.

Joe checked his maps. He told the men that, apparently, the only remaining way out was the Eagle shaft. None of the men knew how to get there, since the Eagle was merely a hole to supply air to the different veins two hundred feet below the surface, and few, therefore, had ever noticed it.

On the way to the Eagle shaft, they met Myron Thomas, a section boss. He too had heard of the situation and was on his way to the air shaft to try to get out. Thomas insisted that they all hurry, but some of the older men were getting tired and began to lag behind with Joe Stella. After a while, Stella reached the Eagle with six men; he thought that those following Thomas would be along shortly, not knowing that Thomas had taken a wrong turn somewhere in the old workings and had become lost with his men.

The Eagle shaft was almost completely straight and vertical, except for a few jagged edges created by blasts

years ago. Any slip or loss of footing would result in a fifty-foot fall back to the river level. Someone had to risk the climb to reach the surface and go for help. Paul Pancotti volunteered. He carefully clutched and felt his way up the shaft. Once he reached the top, he found Bill Hastie, who sent a rope back down the shaft for the other men. Each man was then pulled up, one at a time.

By now, radio and television stations were buzzing with the news of a disaster. In ten minutes the shaft was surrounded by automobiles, ambulances, fire trucks, clergymen, and family members. State and local police took over to clear the rescue area. As the miners were brought up, they were quickly taken to the Pittston Hospital, where their families had been sent to wait.

Joe Stella told rescuers that Myron Thomas had been following behind him with another group of men, but that he did not know what had happened to them. He did think that they still might have been safe on high ground somewhere, though. Thomas was, indeed, still safe with his fourteen men. On their zigzagging way out of the mine, they met one of the older miners, Tony Karetski, who was sure that he could lead them to the Eagle Shaft since he had worked on it himself thirty years before. They agreed to follow him. After going through some old workings, crawling over a few rock falls and fallen timbers, they found another road.

At approximately 6 p.m. Tuesday evening, they heard an awfully loud noise, similar to a blast. (Later they learned this was the outside crew dumping railroad cars into the gaping hole in the riverbed to try to check the enormous flow of water and ice into the mine.)

Tony led the men through more falls and timber, only to be halted again by water. They all ran back to another road to get around the water. Then they came to one section where they saw the letters "F.B." marked in chalk on a wall. These they knew to be the initials of Frank Burns, the pump runner—but there was no sign of him. They learned from some other men in the area that Frank had gone into a lower section to check a pump earlier but never came back. (He was never found.) It was assumed that Frank would not have had a chance of surviving if he was in a lower section when the river broke through into the mine.

The men had only one way left to go and that was back. They could not go any further along the road, for that would take them in the direction that Frank had taken earlier. On their way back they came upon a crosscut that took them a little higher, to the level of the Eagle shaft, although they did not know this. Here they met another twelve miners unaccounted for.

There was little hope by now that they were still alive. Rescuers, however, stayed at the site for several days, but to no avail. The twelve were given up as dead, because in those few days, the water had filled just about all the chambers of the mine. Even the Eagle shaft eventually filled. All exits were now completely blocked by the rising water.

The survivors and rescuers immediately sought state aid. They decided to build a cofferdam around the break-in site to detour the river water around the opening so that tons of concrete could be poured in on top of the railroad cars until the break was sealed. The work was rushed but it still took three months to complete the enormous task.

By that time, the mines from Pittston to Nanticoke had all been flooded.

The resultant end to deep mining in the valley was a hard blow to an already sagging economy. Several thousand miners became unemployed, with an estimated annual payroll loss of seven million dollars. Relief agencies came to the aid of the stricken area. Provisions of the Workmen's Compensation Act were waived to assist families of the survivors. After an investigation and questioning of the survivors, Paul Pancotti was awarded the Carnegie Medal for his heroic efforts to scale the Eagle shaft and get help.

Masses were said regularly at Saint Joseph's Church in Port Griffith by Father Skurski for the missing miners and in thanksgiving for the number of lives saved. To this day, an anniversary mass is held which is attended by the families and friends of the missing men and, of course, by the survivors. Father Skurski had played a large part in the rescue operation, dealing with the families of the trapped men, getting them information about their missing loved ones, and, finally, comforting those who did lose a family member.

The State General Assembly passed a resolution on February 4, 1959, to create a joint legislative committee for the purpose of holding hearings about the Knox disaster. A total of sixty-five witnesses, including Knox Mine operators August Lippi and Louis Fabrizio; superintendents; foremen; survivors; and federal mine inspectors Frank Retsel, David Coslett, and Warren Shirey, testified.

Retsel had investigated the Knox Mine four times between May 1957 and September 1958. He issued a stop order in January 1959, based upon knowledge he had of operations in the mine violating state regulations regarding mining within two hundred feet of a riverbed and of the extensive robbing from the pillar system of the mine. On the night of January 13, thirteen carloads of coal were loaded despite the federal order. The company supervisors knew the chambers under the river to be illegal, but said that these had been driven only to supply the other chambers with air.

Frank Handley was the foreman of this section. William Receski, the assistant foreman, had worked for some thirty-five years as a miner and had been with the Knox company for sixteen years as an engineer. He identified his superior to be Handley. Receski stated at the hearing that a stop line was placed on the mine's map by the engineers of the Pennsylvania Coal Company (the actual owners of the mine who had subcontracted it to the Knox company), above which the operator was not permitted to mine, thus providing for a thirty-five-foot rock cover. However, the mining he had supervised went beyond the red line. Handley testified that he did not stop Receski from driving the chambers, even though he knew them to be off-course.

Myron Thomas, another assistant foreman, informed the committee that the roof of this area had been wet in spots. The men had even complained about having to wear raincoats to work there. Thomas further stated that the pillars were robbed under the instruction of the mine foreman and the superintendent, and that no cog pillars were ordered to be erected in the chamber. In addition, neither Handley nor the superintendent had ever warned

any of the miners that they were working directly under the river.

A miner depended upon the information given to him by his foreman to know how to work a chamber. The foreman, in turn, received instructions from the mine engineer and the surveyors. Ralph A. Fries and Fritz Renner were employed by the Pennsylvania Coal Company as the division engineers, but neither was a registered mining engineer nor a surveyor. Thomas testified that Fries did not personally inspect the wet chambers. Therefore, Thomas himself visited them just before the disaster occurred and had sketched a map, for his own information, of the two chambers. During the disaster, he gave Handley the map to aid him in getting the men out safely. When the map was returned to Thomas two weeks later, it was obvious that the sketch had been extensively altered since the last time Thomas had seen it!

When the committee tried to call Louis Fabrizio, Knox Company president, his counsel filed a restraining order to prevent them from questioning him. A hearing on the complaint was held in Luzerne County Court. It was dismissed on the basis of lack of jurisdiction there; the plaintiff, Fabrizio, then initiated a new action in Dauphin County court. The complaint was denied by the court on April 15, 1959. An appeal was then sent to the State Supreme court, but was subsequently withdrawn. Fabrizio finally testified before the committee on April 23, 1959.

Upon completion of the hearings, the committee recommended several laws be passed to prevent repetition of a disaster like that at the Knox Mine. In the

future, no mining would be allowed beyond the stop line, and a newly appointed mine inspector must inspect all shafts immediately upon assuming the position. An operator who would continue to mine after a stop order was issued would be subject to a more severe penalty than he had been previously: a fine of not more than $5,000, or imprisonment for a period not in excess of three years. (Until the Knox disaster, the negligence on the part of the owners and supervisory personnel which caused such tragedies was defined by state law as a misdemeanor, carrying with it a fine of $500, ninety days' imprisonment, or both.) The committee was of the opinion that there were already sufficient laws existing with regard to labor-management relations.

In March 1977, eighteen years after the Knox Disaster caused the revision of state mining-safety laws, a similar accident happened at the Kocher Mine in Tower City, Schuylkill County. A large quantity of water broke through from an above vein, trapping ten men. The force of the water was so great that it broke supports and timber, causing roof falls and blockages that hampered rescue operations. After a few days, only one man was found alive, while the remaining nine were brought out dead. Again I say that greed and its resultant negligence has always been the worst hazard in the coal region.

STRIKES AND UNIONS

Some foresighted men in the coal region realized that in order to get their working conditions improved and their wages regulated to a fair standard, the miners had to organize—the only way to oppose the companies' strength.

The Bates Union was organized in 1848 in the Schuylkill Valley. It sponsored a strike that year which was settled after several weeks of hardship and very little accomplishment. In July 1848, the union instigated another strike for the announced purpose of limiting production so as to increase the price of anthracite and thereby put laborers in a better position to secure higher wages. In 1850, however, the union's president left town and the union fell apart.

Other unions were started, only to be defeated by members' aggressive tactics and reactionary measures of the companies. Strikes were called periodically. Picket lines were established, but were usually broken up by company police. Many men were injured or even killed on the picket lines when the police used guns against angry gangs of miners with clubs and rocks. Clashes of this kind were quite frequent. Wives often joined the picketing in support of their husbands.

By 1874, considerable bitterness had developed between operators and the current union, the Workingmen's Benevolent Association. The union was becoming weak because it had for the previous six years been trying to control prices by calling for work stoppages regularly. But unreasonably arbitrary demands by the Association were now undermining its support by the miners themselves.

Effective December 6, 1870, the three major operators in the Northern Field announced a 30% wage reduction, to which the Union responded by calling for a strike in both the Northern and Southern Fields. This action failed. The strike was ended by the spring of 1871—a victory for the operators. The prestige of the Union was badly damaged. It attempted to reorganize under the new name of "The Miners and Laborers Benevolent Association." Another strike was called for January 1875, in response to further wage cuts.

But, while the operators were aware of the fact that the Union was determined to regain its strength, they also knew that it was losing the cooperation and support of the Northern locals. The companies, therefore, refused to negotiate, and waited. The miners of the Northern Field continued to work while the Southern Field struck. Violence flared. Company property was damaged. The miners and their families prepared for the five-month work stoppage by planting larger gardens and by sending wives and children to work on local farms to earn some extra money to meet the hardships at home.

The companies retaliated by bringing in "scabs" to work in place of the striking men. They sent word to their representatives in Europe to contract more workers who

would not be union men and who would probably even work for lower wages than the regular miners. (The foreigners who were already living in the region were beginning to take part in local social, church, and union affairs.) At times, the companies would give the scabs money to send for interested friends or relatives from Europe who would works as scabs. The price of a ticket from Europe to this country was about twenty-five dollars. But sometimes, the scab would just keep the money and tell the company that the friend had refused to make the trip and had not returned the money.

Association President Welsh pleaded with the men of the Northern Field to support the strike, but with no unified effort, the strike collapsed. By June 1875, men were slowly going back to work. The companies now considered the Union to be just about dead.

Welsh visited the Wyoming Valley and expressed his disappointment in the way the Northern miners had reacted to the strike. Yet, he did realize their position, in that the great number of strikes called throughout the previous ten years had taken a serious toll on their income. Because of that, they were reluctant to strike although they had no desire to undermine the Union's position.

By July 1877, however, the Northern locals were finally prepared to strike for a wage increase. Violence broke out as scabs were brought into the area, and instead of an increase, a pay cut was announced. A mass meeting of the locals was called.

The operators sensed more trouble ahead. They asked Governor John F. Hartranft to send in the State militia to

restore order. Meanwhile, the mayor of Scranton formed a "home guard" to protect the city from the striking miners. The Union organized a march in Scranton on August 1 to gain support for the strike. When the mayor and his guard stepped in to halt the marchers, he was beaten by miners. The guard responded by firing into the line of marchers—an action which killed three and wounded several others. This was the beginning of the end of that strike.

Both Pittston and Wilkes-Barre locals voted to return to work. These men actually received from their companies a 10% wage increase for returning to their jobs. On October 16, the locals in the Scranton area voted to go back to work on company terms.

One week later, the operators secured a list of the names of the strike leaders and fired fifty men, who were then blacklisted throughout both fields. The Schuylkill mine workers, by the way, did not stop working while this Northern strike was occurring, thus undermining its effects just at the Northerners had refused to help them back in 1875.

By 1896, unions were becoming a little stronger. Also gaining strength and popularity at the same time was John Fahy. Fahy had been sent to the Wilkes-Barre area by the United Mine Workers of America Union to establish a few strong locals. He believed that appointing some immigrants to local union positions would be a good move toward strengthening the popularity of the UMW in this region, since the majority of the workforce here was, by that time, made up of immigrants or first-generation Americans of European descent.

When Fahy left, Chris Evans and Ben James took over the organizing efforts. Johnny Mitchell, at the age of twenty-eight, became president of the UMW in 1898. By this time, membership had risen to about one hundred thousand men, but in the hard coal region the Union was still weak. Local miners earned only about $250 annually.

Mitchell called together labor leaders and company representatives for a convention in Hazleton in 1900 to discuss wage increases. The operators would not attend, nor would they consider any salary increases. Mitchell therefore called for a strike of all Northern, Middle, and Southern fields, effective September 17, 1900. Two weeks later, virtually every operation in the anthracite region was idle. One of the reasons why strikes had never been effective before this was because, whenever a strike was called, not all of the Fields cooperated, as we have seen. The success of Mitchell's forty-day strike brought anthracite miners a 10% increase in wage rates and a guarantee of a cash salary payment on a semi-monthly basis.

Earlier in the year, around May, rumors were heard that the Slavs in the Tamaqua, Shenandoah, and Mahanoy City area (i.e., the Western Middle Field) were trying to begin a strike of their own—a violent one. They set up roadblocks to stop everyone from reporting to work. Even pump runners, who were usually allowed to continue to work during a strike so that the mines would not become flooded, were stopped.

Union officials tried to reason with these groups but met with no success. The violence began. In an effort to avoid meeting the Slavic bands, some maintenance men

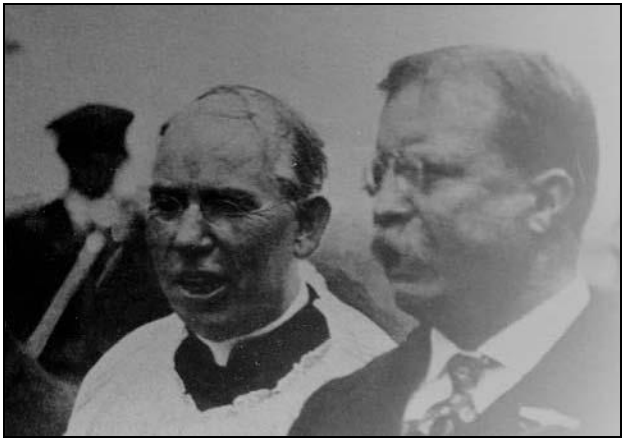
stayed at the stations for days at a time. Two men disguised themselves as women to get through the angry mob to work, but were recognized and beaten. Strikers surrounded homes to prevent men from going to work. One man ordered the strikers away from his home or else he would shoot them. But as he stood on his porch warning them, someone in the crowd shot and killed him. Bosses were beaten; porches were blown up; local police and a Polish priest who had tried to pacify the mob were beaten.

The news came out that Joseph Bedall, a prominent community leader who had also been beaten by the strikers, died of his injuries at Ashland State Hospital. The day after he died, a fire boss in Gilberton and a guard in Minersville had their homes bombed. Scabs and coal company police were attacked while on the job. One scab, James Winston of Olyphant, was brutally beaten to death, although Scranton police could, after an extensive investigation, find no person or persons to indict for the murder. Federal troops were finally sent in to curb the violence of the Slavs.

In the end, John Mitchell sent Martin Menolo and Tony Schlosser into the area to organize peace committees. They managed to convince the strikers that they were defeating their own cause with so much violence. The miners, under Mitchell, made new demands in 1902: a 20% wage hike but with a 20% reduction in labor-hours. No company would meet with Mitchell to discuss the proposals.

On May 11, 1902, the UMW called another general strike. Things got out of hand, though. Property damage and violence forced the operators to bring in their

company police. When even the pumpmen, firemen, engineers, and carpenters were told to strike, the companies had a difficult time trying to protect their property. President Theodore Roosevelt intervened after about five months of the strike. He notified the operators that if they did not cooperate and submit to arbitration with the Union, the federal government would take control of their mines.



Father Curran and President Roosevelt, 1902

A new committee, consisting of a member of the military corps of engineers, a federal judge, an independent mining engineer, and a businessman, was established. The decision this committee handed down awarded the miners another 10% wage increase based upon a nine-hour day and created a permanent grievance committee to arbitrate all disputes between operators and the Union. All decisions of the board would be final and binding upon both parties.

However, what Mitchell had hoped that this strike would establish—the absolute authority of the UMW in the

anthracite field—the board took steps to prevent. It ruled that this coal field would be an "open shop," that is, no employee would be required to join the union if he did not want to, with no danger of his being refused work in any area mine. Mitchell became highly respected in the coal region after this strike. In most of the miners' homes, you could find a picture of Johnny Mitchell. A monument was later erected on Courthouse Square in Scranton in his honor.

John L. Lewis was born in Lucas, Iowa in 1880 to an immigrant family. His father, Thomas, had been active in union affairs in the area and was one of the leaders of an early mine strike—an act for which he was later blacklisted by several companies. He had to move his small family to different towns as word of the

blacklisting followed him. John was raised in those Midwestern mining towns. He, too, eventually worked in the mines and took part in several strikes.

By 1906, Lewis was back in Lucas, where he persuaded the members of a local to elect him as a delegate to that year's United Mine Workers convention. One year later, he married a schoolteacher, Myrta Bell, who helped to educate him. They moved to Panama, Illinois, another coal field. There he decided to get out of the coal mines and into a union office. Lewis was elected president of the local union in Panama. He so impressed labor leader Samuel Gompers with the way he handled the local operators that Gompers appointed him to be a field representative.

After John Mitchell died, his position was filled by John P. White. When White resigned the office to become an arbitrator, Frank Hayes became UMW president. Hayes immediately appointed John L. Lewis as the first vice-president. Hayes was an easygoing sort of fellow who drank a little too much. Eventually he stepped down to have Lewis take full charge of the Union.

John L. Lewis

During the convention of 1919, over which Lewis presided, the miners' demands were for a 60% wage increase, a six-hour day, and a five-day week. Lewis took these demands to the operators, but negotiations came to a standstill. He informed them that, if the demands were not met, the United Mine Workers would strike. The strike deadline was set at November 1, 1919. No settlement could be reached, so the strike began.

In less than a week, the Attorney General obtained an injunction ordering Lewis to call off the strike. This he did, telling the miners that they could not fight the federal government. The men went back to work with great disgust. They felt that they had been betrayed. Union membership dwindled, and a call for resignation rose up.

The 1919 demands were presented to a joint conference of workers and operators meeting in New York City on

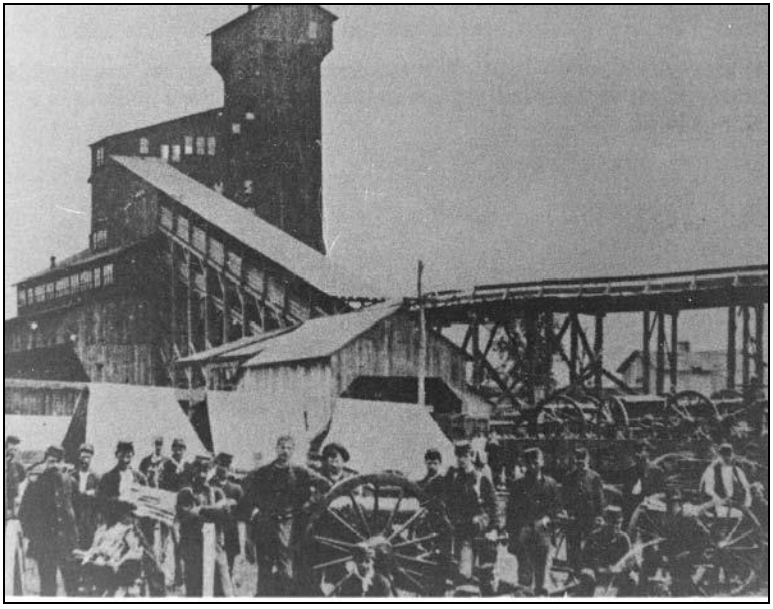
May 9, 1920. After a month of study, during which time no decision could be reached, Secretary of Labor W.B. Wilson asked President Woodrow Wilson to appoint a commission to hear and decide the issues. The resulting Anthracite Coal Commission heard various testimonies from operators and miners; toured the anthracite region, inspecting living and working conditions; and finally recommended that the workers' demands be met.

Such series of strikes and negotiations continued for years. Practically every year saw a general strike called to force negotiation of wage increases, improvements of living and working conditions, grievances, and so on. During the four years between 1922 and 1926, anthracite mines were idled a total of 351 days by strikes. The losses in wages and production were obvious. In addition, the frequent interruptions in the supply of anthracite encouraged the market to find substitute fuels.

As time went on, labor and management became friendlier, and more cooperation was derived from the rank and file. Church and community organizations grew as additional outlets of activity for the miners and their families. Local clergy, of course, played a large part in securing peace between operators and the Union.

The companies agreed to improve conditions in their mines: better ventilation systems were being developed; pay was steadily increased; the miners were allowed to choose docking bosses from their own ranks. Qualified men were recognized for promotion to better jobs. The eight-hour workday and forty-four-hour workweek were established. And last but not least, stricter mine-safety and inspection laws were set up and enforced. Modern equipment was installed to increase production: the

electric drill cut blasting and drilling time considerably, while mechanical loaders and undercutters played a large part in production increases. Loading docks were placed on the head roads, where “shakers” and “jalopies” were brought in to allow the miner to move his coal out in record time.



Army protecting a breaker

IMMIGRATION

Immigrants landing

From 1865 to 1881, there was a steady rise in the number of immigrants who came to American shores. Toward the close of the nineteenth century, there was a gradual decline in numbers. Suddenly, the number of newcomers increased greatly and for several years starting in 1900. Europeans came to the United States by the hundreds of thousands every year.

Pennsylvania received its share, and at one time had the second-largest population of foreign-born citizens of all the states. In 1904, a study showed that 32% of those people living in Northeastern Pennsylvania were foreign born. Among these were recent immigrants representing

twenty-six different nations of origin.

The new immigrants after 1890 came with similar hopes and ambitions to those who had come before. Workers from Italy sought to escape the poverty of overcrowded farms and cities. People from the Slavic countries sought not only a better living but also freedom from political oppression.

Poland was once a proud nation, but it had lost its independence at about the time Americans were gaining theirs. The territory of the Polish people was carved up among Germany/Prussia, Russia, and Austria. From that time on, the Poles, a freedom-loving people, staged several revolts against their oppressors, but without success. Many of the Poles in the Russian sector were Jews, who consequently became the victims of periodic pogroms as well. The Polish people sought freedom and security in the United States.

Conditions in Austria were not much better. The Czechs, once the backbone of the proud state of Bohemia, had lost their independence to Austrian rulers. The nation of Hungary also became subject to Austria. The empire of Austria-Hungary was much like Russia—one of the last surviving empires in which people had few rights and little, if any, freedom. Very few citizens owned their own property. Persecution based on political and religious matters was common. Ideas of freedom and opportunity were unfamiliar to most Europeans in the late nineteenth century.

Most of the immigrants after 1890 arrived with little money. Since most of them were unskilled, they had to take whatever jobs they could find at whatever wages

were offered. Many settled in the coal region, joining relatives or friends already there. Their dream was to build better lives here than those they had left in Europe.

Men who had worked in the mines of Europe found work in the coalfields of the Appalachians, while some even headed for the valuable rental mines out West.

These people were generally very poor, arriving with all their belongings crammed into a trunk or suitcase. Housing was a major problem as well. Those men who had wives or families with them usually had relatives or friends in this country already, with whom they could live. Young men coming alone would often find a room in a local boarding house.

Since American ways were strange and the English language unfamiliar to most immigrants, the newcomers once in this country continued their old ways of life, settling into close ethnic communities and speaking their own languages. As a result, the foreigners' "strange" ways were often laughed at, and they were called a variety of harsh names. (Only the Scotch and Irish seemed less alien, since they did speak English. This fact also accounted for their being able to get the better jobs as company men.)

Immigrants were very much resented by the Americans whose families had been here for generations. They felt their jobs were in jeopardy from foreigners working for lower wages. Resentment grew alongside the number of immigrants—and both increased dramatically.

Some companies had even sent representatives to Europe to encourage men to come to America, for cheap labor

was needed in all types of jobs. The companies would make various promises to recruit a labor force. For example, a certain representative agreed to pay for a man's trip to the United States; the man would then report to the sponsoring company for a guaranteed job with the understanding that, each week, an amount would be withheld from his pay until the cost of the trip was recovered in full. Many European men jumped at the chance to see America, an opportunity few would probably ever have had on their own. Also, the guarantee of a job was often much more than Europe could offer.

Many of these people were later very disappointed at not making the kind of money here that they had been originally promised. (Strikes played a large part in their receiving small pay, or none at all.) Sometimes a man was able to save enough money to make the return trip home to Europe, although most people felt that making the long, miserable journey across the ocean once was enough. Besides, life was much more severe in Europe at that time, making it pointless to return.

Many men had to come to this country with the intention of sending for their families later. Usually they were able to bring over at least the balance of the family. Once here, their children would take jobs of almost any type for twelve hours a day, at about thirty-five cents a day, in nearby stables, farms, stores, or blacksmith shops.

The immigrant and his family were often placed in jobs where there was a shortage of manpower. When a strike broke out, the coal operators would send the new men to the affected mines to work as "scabs," thinking that, since these people must have lacked any knowledge of mining operations or much, if any, general education,

they would not give the company the trouble that the regular workers were. But it was not long before the foreigners learned what the American miners had been fighting for all along. After a few years, they too became educated about union affairs and began to take their part—not as the scabs of the coal company, but as active union members. They joined their American neighbors in future strikes to better their shared working conditions and pay envelopes.

It is well documented that, in later strikes, Poles, Slavs, Italians, and Germans played a large role in bringing the operators to agreement on many issues. A shorter work week; an end to the twelve-hour workday; improved mine construction, particularly ventilation systems; and an increased use of machinery for the basic mining process were all important improvements for which the "foreigners" could take just credit.

World War I played a large part in changing the attitude of Americans toward the immigrants, but with few exceptions, the newcomers proved to be loyal to this country, working hard for its victory. Many foreign-born men earned their citizenship by serving in the United States armed forces in that war.

Pennsylvania authorities set up new citizenship classes in some local schools to educate the immigrants on American ways of life. This succeeded in helping many young immigrants feel closer to the United States than to their European homelands, some of which were among America's enemies in the war. It was a question of trying to avoid divided loyalties within one of this country's largest workforces.

This program helped to naturalize thousands of foreign-born people. They were encouraged to send their children to public school, to take part in the social life of neighborhoods other than their own, and possibly even to move out of the ethnic communities and mingle with the native citizens and other nationalities.

Church affairs provided marvelous opportunities for groups to get to know each other. The public school system was also an important instrument for the making of new citizens. It was in our schools and playgrounds that the children of immigrant parents learned the values and goals which shape American life.

Gradually, each group recognized more similarities than differences between themselves and other groups. In general, every group shared a desire to be good, hard-working people trying to provide the best they could for their families. On the job everybody worked equally hard, so that, in time, a healthy respect grew among all the various nationalities for their fellow workers.

There were frequent accidents and disasters in the mines. When something terrible happened, no one stopped to ask what nationality the victims were. Everybody would run to help.

I was told of an accident in which a laborer was caught in a small cave-in. He fell against the coal car he had been loading, which saved his life, but his leg was pinned under a pile of rock. A couple of miners pitched in to remove the rocks only to discover that his leg was badly smashed. One of the rescuers spoke no English but nevertheless understood very well what had happened and knew just what to do. He knocked the handles out of

two picks and fashioned a splint for the man's leg, using pieces of clothing to secure the wood.

After the injured man was removed to the surface, the company doctor attending him asked about the foreigner who had applied the splint. The miner was sent for. Through an interpreter the doctor learned that the man had been taught how to deal with similar injuries while working in a European mine. The doctor took up the matter with company officials and ultimately had a first-aid rescue team organized for their mines. Of course, this foreigner was one of the first members of the team, and a very popular and capable one at that.

All through its history, Pennsylvania has been one of the great melting pots of the country. Just look up the names of the members of our state assembly and you will note how many of these names originated in Southern and Eastern Europe. The great nineteenth-century wave of immigrants provided Pennsylvania, as well as the entire country, with a wealth of human skills and leadership.

If you live in a region settled many years ago by Swedes, Germans, Welsh, Scotch-Irish, or Eastern European groups, no doubt your own community's leaders are noteworthy examples. Perhaps your own parents or grandparents were among those who helped build a modern Pennsylvania.

Our great state today is a product of the joint labors, skills, and abilities of scores of different peoples who through the years came here in search of freedom and stayed to help build a better Pennsylvania for all of us.

BOARDERS

With the need for more workers, the miners were always asked to send for brothers, cousins, or friends from Europe. Men came by the hundreds, arriving in New York often speaking no English. Their only means of identification was a tag worn on their jackets, on which was written the name of the town to which they were heading. They then went by train to find their relatives.

Finding places to live was a problem. Before newcomers arrived, their relatives or friends in America would ask around and try to find a room, or sometimes even just a bed, somewhere for their expected kin. Many households took in boarders as an added source of income. But each home, often containing barely enough room for original family members, could handle just so many extra people. For some boarders, a mattress on the floor was the best that could be provided.

One lady, remembered as Mrs. P., had an idea. She went through the neighborhood to gather all the boarders for a meeting. She then explained her plan to them. If the boarders would change rooms from one house to another according to what shift they were working, all of the men could then have a place to sleep, at different times. One shift would sleep while another was at work. The men arranged with their bosses and superintendents to change shifts, as long as the changes did not hurt production. The men were very happy about the entire arrangement, since, for many, it meant no more sleeping on the floor.

Mrs. P. had six beds for boarders, so that, by having them on shifts, she had six miners working while six slept. When these people woke up, they would go to work on the night shift. In the meantime, Mrs. P. could make up the beds for the returning day-shift people.

All of this took a lot more work on Mrs. P.'s part, more clothes to wash, and more coal to keep the house warm and supply extra hot water for laundering and bathing. The water was heated in copper wash boilers on top of the kitchen stove. It was dumped into a round galvanized or wooden tub. A miner would kneel on the floor and bend over the tub to wash the upper part of his body, and then stand in the tub to wash his lower half. Bathing was done in a closet or small room just off the kitchen or in an enclosure of some kind built on a back porch. The miners would help one another to dump the water into the tub and, later, to empty the tub in the backyard to be refilled for the next man. Sometimes, the same bath water had to be used several times, because not enough water could be heated in time to allow all the men on one shift to wash.

Mrs. P. had to do a great deal of cooking and cleaning to maintain her boarding house. She was certainly a very busy woman. Clothes had to be washed by hand on a washboard in those days and hung outside on lines to dry, where some were stolen if left out after dark. If a piece of their clothing was missing, the men would have to borrow from each other.

Boarders bought their own food and brought it home for their landladies to cook for them. When he bought some meat, before it was put in the big pot with the family's

meat, each boarder would mark his piece with such things as buttons, safety pins, or pieces of colored string. Forgetting one's marking always started a fight between the boarders.

After they had become settled with steady work, most of the miners were eager to get married and raise families. Some of the men found love with their landladies or the daughters of the household. Many a young immigrant had already had a girlfriend in Europe, for whom he would quickly send once he got a steady job. Although it was hard, these young girls were brave and willing enough to come and build a whole new life in America. When a girlfriend arrived, the young man's friends and neighbors might get together and have a large party to welcome her.

Weddings were quite frequent. A little orchestra, often no more than a few accordions, would be hired, and the guests danced and celebrated for two or three days. Food was plentiful and delicious, for all the neighborhood ladies would bring something special. The miners would make sure that there was enough liquor to go around—someone's own special brew or, at least, a keg of beer on tap. Total strangers would often just walk into one of these wedding parties to congratulate the happy couple and end up staying for days, having a good time with the rest of the crowd.

One of the best parts of these weddings was dancing with the bride. Partygoers would attempt to break a plate by throwing a silver dollar at it. If you broke the plate, you could then dance with the bride. Sometimes, for fun, the person holding the plate would use an especially strong one, so that the men would have some trouble trying to

break it. This little joke would serve to collect that much more money for the bride.

Everybody enjoyed dancing the polka at a wedding. It was a favorite dance, fast and full of fun. Men, women, and children always crowded onto the floor to dance to their hearts' content.

COMPANY STORES

The company stores were, at times, a great help to the coal miner and his family. Paydays were two weeks apart and the number of days worked each week varied. Paychecks did not always meet the miners' needs. Each family was given credit at the local store owned by the company for which the head of the house worked. When paychecks arrived, the store expected its bills to be paid. However, there were times when either the miner had nothing left after paying other bills, or he still owed a balance to the store to be carried over until the next payday.

The company stores did not have everything, but they did have most of the items a miner and his family needed. The store was set up with mostly everything on display or in boxes with the prices marked on the top. In 1900, some of those price tags read as follows:

Sugar – 3 cents/lb.
Butter – 22 cents/lb.
Coffee – 12cents/lb.
Lard – 8 cents/lb.
Cheese – 12 cents/lb.
Soap – 3 cents/lb.
Pork chops – 8 cents/lb.
Pork butter – 8 cents/lb.
Whole hams – 10 cents/lb.
Fish – 5 cents/lb.
Balogna – 5 to 8 cents/lb.

Many household items, such as bedding, clothing, or stockings, sold for five to fifty cents.

The miners and their families purchased some of their supplies from the store and endeavored to produce the rest by themselves. Many families had vegetable gardens and raised chickens; some miners managed to raise a cow or two, some pigs, ducks, geese, or whatever they had room for in their backyards. All of this required a lot of time and work for the family.

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The children enjoyed going to the company store, with its many different varieties of candies, jellybeans, sour balls, lollipops, and so on. On every trip to the store, they would coax their father or mother for some treat. At times, the storekeeper would slip a child a piece of candy or an apple. When he got home there would be trouble, what with the rest of the children demanding their share. Mother usually had to solve the problem, because the gift

would be too small to share. The next time she would have to take one of the other children, and so on, until everybody had had a turn visiting the store.

In most of the homes, workers and boarders would make sure that they had some pennies for the children of the house. When they received their pennies, you had to get out of the way very quickly, for the big rush was on to the store. If you were in the way, they would run between your legs! After arriving at the store, the children would look like millionaires, picking out every candy their hungry eyes saw. Unfortunately, though, they did not have enough pennies for very much candy.

One mischievous but good-hearted boarder, a native of Austria, would always have some fun with the children on payday. He would put some pennies on the fire shovel on top of the stove and get them pretty hot. The four children of the house would gather in the backyard, where he would throw the hot pennies out to them. After a few rounds, he had more children around than he could handle. All the neighbors would gather to watch because their children had probably gotten involved in the game by then. The children would scramble for the hot pennies and kick them from side to side until they had cooled off enough to be picked up. If you dropped one, someone else could pick it up for himself. The boarder had made a rule that no one could use a glove or anything else but a bare hand to pick up the coins.

PICKING COAL ON THE DUMPS

Considering all the conflicts between the companies and the miners, you might not expect the operators to be as tolerant as they were about the poaching of coal by local families. However, operators knew the conditions in the homes of the miners, especially during a strike when, unlike today, there would be absolutely no income. The head of the house would be desperate to find some means of raising a little money to provide for his family. One way was to take trips to culm dumps with his children or a few other miners to pick the coal found in the waste or to start an outside hole. He could usually find enough for his own winter supply. He could sell leftover coal to bring a little money home, with an eye to paying the store bill.

When the miner piled his coal for sale, he usually had no scale on which to weigh it. Therefore, he would use a simplified measuring system, such as putting coal into bags so that twenty full bags would be considered a ton. Another popular method of measuring was by the bushel. Some miners counted twenty-eight full bushel baskets to the ton. The bags or baskets were piled near the dump, one ton to a pile.

When they had a few piles, the miners or their families would sit beside them and wait for a buyer. These buyers were often people who worked elsewhere than the mines, such as businessmen, bankers, or storekeepers. They

would go from pile to pile trying to bargain with the miners for the cheapest price on the coal. The miners would try to keep the price around five or six dollars a ton. However, if a buyer offered them three or four dollars, it was difficult to refuse a sale, for it was at least some money to show for a day's work on the dump.

Halstead Dump, Duryea
A buyer negotiates with miners for $4 per ton

When the men left their areas to return home in the evening, someone had to stay behind and guard the coal piles through the night. It was a common practice for others less successful on the dump that day to roam around and steal other people's bags at night. If a theft did occur, you might see the miner on the next night, sitting before a fire at his pile of coal with a shotgun or revolver at his side to protect his interests. Arriving

home at night, the miner and his wife sat down to count the day's earnings and stretch them as far as possible to meet their mounting expenses.

Digging outside holes or picking on the dumps had some dangers and disadvantages. Many miners would continue digging, however, until there was danger of the sides of the hole caving in to bury whoever was in the hole at the time. There were several instances of men being buried up to their necks or even over their heads. When something did happen, the cry "man buried!" would go out, and the men nearby would stop their work to rush over with their shovels and proceed with the rescue operations—sometimes with happy results, sometimes not.

The miners always carried little repair kits with them just in case something had to be fixed. These bags were not easily replaced, so that when tears accumulated in them, the miners would patch them with pieces of older bags that were already beyond repair. It was a common sight to see the miners sitting by their bags of coal, sewing up their bags while waiting for customers.

The screening used to separate culm from the coal they had picked was another valuable piece of equipment for the miner. Screens were about two or three feet wide and five to six feet long with two legs attached to one end, so that when it was set up the frame rested at a forty-five degree angle to the ground. The miner would shovel the culm onto the screen, which was usually a quarter-inch mesh. The fine culm would pass through the mesh, while the remaining bits of coal slid down the screen onto a piece of tin or sheet iron. There, the rock could be picked out, leaving a balance of fairly good coal pieces. This

would then be measured out into the bags or bushel baskets and dumped in a pile until a ton was collected.

Often in this screened coal there would be pieces too large for the grates in a stove. These had to be cracked or broken up to about the size of a chestnut, a size that would allow the ashes to go through the grates after burning. This was a time when the miner enjoyed having his children along with him. Children would sit by the pile and crack the large pieces, giving the father more time for screening and bagging to speed up his operation. He would not bother to crack those pieces of coal that he intended to take home for the family's own use. Instead, he would leave these in his backyard to be cracked later on, when he had more time.

At home, even the miners' wives would sit out in the yard and help with the cracking. Every yard had a special section where the coal would be piled until it could be cracked and stored in the coal shed. There was the usual set-up: a couple of stones or irons on which to smash the coal chunks with a hammer, a few empty dynamite boxes brought home from the powder shanty to serve as seats, and a coal bin to collect the cracked pieces. When two or three people were cracking, it was dangerous because pieces would often go flying. Some pieces might strike others, sometimes in the face and eyes. Unfortunately, safety goggles were seldom if ever available.

**A local woman, Annie Kremitski,
with children at a culm dump - 1925**

Visitors came quite frequently to the dumps to watch the miners and their families picking and selling coal. The outsiders enjoyed this scene very much and would even pick a few pieces themselves to take home as souvenirs. Teachers would sometimes get permission from their school directors to take their classes to a dump to see the open-hole operations. The children also enjoyed these trips, but they did not have to gather any souvenirs; each child had plenty of coal at home in his own backyard. People who came to visit from outside the coal region, however, surely would not leave for home without enough souvenirs to go with them—dirty, dusty bits of coal.

Making a culm bank at the Barnum colliery site

THE USUAL STOP AFTER WORK

After a hard day's work in the mines, the men would go to their neighborhood saloon for a favorite drink, usually beer or whiskey. They would drink the shots to loosen the coal dust, cough it up, and spit into the spittoons around the bar. These containers were cleaned every day by either the proprietor or some man who was out of work, and so would do the dirty job in return for a couple of drinks. There was almost always someone like this around these saloons, because there would always be someone out of work due to a strike or a disability, usually miner's asthma.

If a working miner did not have enough money for a drink during the week, he would buy drinks on credit, to be paid every two weeks when he received his pay at the mine. Most of the men would not realize how high they were running their bills, as they would have to drink so much every day until they had relieved themselves of the dust. On payday, this bill was often paid first, with the miner bringing home the balance of his pay for the store bills.

Often miners would discover that, by then, they were short of money. A wife would necessarily be upset by this and argue that her husband should stop going to the saloon or, at least, cut down on his drinking to save a little more money for the store bill. But to the miner, this would be like cutting off his right arm, for he felt that the liquor was the best medicine. Some of the women, therefore, had to find an additional source of income for their households.

In the summertime when the children were out of school, the women would take their youngsters and walk three or four miles to some farm to work. The jobs were hard and long, up to ten hours a day. Wages were usually about thirty-five cents a day. If a child was old enough to also work, he would be paid according to how much he could do. Those children too small to work would still tag along with Mother to the farm. At the end of the week, if the farmer said that a child was worth only fifteen or twenty cents, you could not argue with him, because you would only find yourself out of a job. There were plenty of families willing to replace yours.

Women and children would also pick rags, bones, scrap iron—anything the ragman might buy. These men came to neighborhoods, blowing a horn for people to come out with anything that they had to sell. Some women would put stones inside of a bag of rags to make it weigh more to get more money for it. The ragman, however, could usually feel the stones and refuse to give the women even half of what the rags were worth.

A few miners turned to other ways of saving money when they agreed that drinking at the hotel was getting to be too expensive. They got together and built a still at someone's house in which to make their own liquor. The still was nothing more than a copper boiler with some copper tubing that sat on top of the kitchen stove. At times, men would stay up all night making their favorite formula for "moonshine." The batch was divided later among the men so that each could have some to take home.

Word of the still would spread. Soon, another miner—say, Joe—would ask to borrow the still. The men decided to loan it to him because he was a good fellow with a large family and could save some much-needed money by

making his own liquor. This led to one miner after another asking to borrow the still, so that finally it was being moved from house to house practically every night. Now, Joe became dissatisfied with only borrowing the still. The next time he asked for it, he and a friend built themselves one just like it. As time went on, more men began to make their own stills. Everybody was borrowing from everybody else. Stills were constantly being moved around, generally late at night to avoid trouble with the law.

But trying to keep an operation like this a secret was impossible. Eventually one of the saloon owners realized that he was losing business. He did not see many of his usual customers around anymore. He would begin to ask questions, only to find out about the stills. The owner would likely inform the local constable, who would promise to look into the situation.

The constable would probably find quite a few stills in town. But instead of raiding the men's homes and smashing their stills, he got together with the burgess to work out a plan for their own benefit. They decided to visit each miner who owned a still and tell him that it would cost him $25 a month for the constable to keep the knowledge of the still to himself. Some of the miners agreed to the bargain, while others did not. Those who did not go along with the plan were arrested and fined for owning a still. If they could not pay the fine, they were jailed. Every day the constable would tell the jailed men that if they would agree to the $25 kickback, he would give them back their stills and all charges would be dropped. This went on for some time, with the burgesses and constables living pretty comfortably on their extra monthly income.

One month, Joe and his friend refused to pay. They also decided to get rid of their own still and buy their liquor

from another friend—say, Peter. Instead of paying the constable, they could use the money to buy Peter's liquor. However, when the constable found out about the arrangement, he demanded more money from Peter, since he was making more money by selling to his friends. Peter did not agree. The constable then raided his house with two deputies to confiscate the still and put Peter in jail.

The constable would visit Peter in jail to try to make the same deal with him as he had made with the other moonshiners. But Peter would not go along with it, so that, after ten days, he was released without having his still returned. When he tried to buy liquor from friends, Peter was turned down; nobody wanted trouble with the constable.

Finally, Peter got so angry that he went to the county officials with his story about the stills, the burgess, and the constable. The county sheriff came to town to collect all of the stills and take them to the borough building, where he promptly smashed them all. The miners were arrested and fined $25 each. This ended the making of moonshine in the neighborhood.

A few men had hidden their stills so that the police would not find them, but were afraid to operate them again, since the constable was now watching very closely for any sign of a moonshine operation. The miners had no alternative but to go back to the local hotels for their liquor.

A HIJACKING

One evening while a few of the miners were relaxing around a friendly card game, Mike Kaezenski came into the saloon. He asked the men to stop their game for a few minutes and listen to him. Mike told them about seeing the same truck on a certain back road for several nights as he was returning home from his shift. Nobody could guess what might be going on. However, they did think of a way to find out.

If a few rocks were placed in the road, the truck would have to stop or at least slow down. This would allow one man to come out of the bushes nearby and climb into the back of the truck to see what was inside. The question arose as to which one of them would be willing to do the dangerous job. Getting caught might lead to serious trouble. The men decided to choose randomly: they each chose a card, agreeing that the man with the highest card would get the job. When everyone turned over his card, Mike himself held the highest one, the king of spades.

Mike would have to slip out of his boardinghouse, sneak down to the back road, place the rocks in the path of the truck, and wait. A few nights went by; Mike waited until 4 a.m., but no truck passed by. He began to get tired of waiting. The following week things went better. He was then on the night shift and could walk home along the back road less conspicuously. Finally, on Wednesday morning, while Mike was sitting behind some bushes, he heard something coming down the road. Then he saw headlights. As the truck slowed down to drive around the rocks, Mike ran up to it and jumped into the back.

Mike pulled up the canvas that was laid over the contents of the truck and found a load of five-gallon cans. He quickly removed the lid of one can to find it filled with homemade liquor. His mind clicked into high gear, and within moments he was sliding out over the tailgate with a good grip on one of the cans. When he landed on the ground, though, he went sprawling one way while the can flew in the other direction. Mike managed to get himself back on his feet and into the woods with the can. He scraped out a hole into which he placed the can and camouflaged it with leaves and branches. He then raced home to his waiting friends.

His friends saw that Mike was bruised and shaken up a bit. They thought that he had failed again and may have even been caught by the truck's crew. To their surprise, he told them what he had found. He also told the men that he would go back the following night to dig up the can he had buried and that they should be ready with their own containers on his return so that the liquor could be divided among them. On the next night, he brought the can home with him from work to his waiting friends. They filled all the bottles they could find. These they later hid in their cellars. The five-gallon can was crushed and buried to hide the evidence of their mischief.

For many nights to come, the miners enjoyed their drink. And it was Mike's steady job to hijack the truck every so often to renew their supply, until one day when the driver began to wonder why he was so often one can short in his load. His boss decided to put an extra man in the back of the truck to find out what was going on. The next time Mike tried to jump into the truck, he was met with a swift kick to the face.

Mike made his way back to the woods, where he tried to clean up his face a little. When he returned home, however, his friends could easily guess what had happened. The decision was unanimous to relieve Mike of any further hijacking duties. Mike agreed, gladly.

CHILDREN OF THE COAL REGION

There was typically little amusement for children in the patch. They had to get together to invent their own fun.

When the miner came home from work, usually some of his children would be ready to go get his evening beer. They would take his dinner bucket to the saloon and have it filled with five or ten cents' worth of beer. For this errand, they would often receive a little gift from the bartender or a little glass of beer from Father. Sometimes Father would put a piece of candy or a penny in the bucket for the child who asked to go for the beer.

To make a few cents during the summer, children would take to the surrounding woods to pick berries. This was a difficult way to make money, though. After picking a few quarts, the children would go to homes and stores in the neighborhood, trying to sell the berries for five cents a quart. This money would always be turned over to their mothers with great pride, because every child understood the conditions at home and was more than willing to help out in any way. There were also painting jobs and a little woodworking around the patch for young fellows.

And talk about business tycoons! It was always great fun to watch the children get together and sell Cloverine Salve door-to-door, much the way schoolchildren today sell candy and Christmas cards. The company's deal was to sell so many cans of salve in order to receive a gift. If you sold twelve cans, you would receive a certain item;

if you sold eighteen cans, you and your helpers could receive an even better gift; and so on. There was always a nice choice of gifts. When those enterprising children sat down at the kitchen table to discuss customers and complete order forms—with Mother's help, of course—you would think they were running their own multi-million-dollar corporations!

Silent movie houses were beginning to open in several towns around 1915. This took both children and older folks by storm. The main attraction for the children was the Saturday matinee. They would do anything to earn the ten cents for the movies—five cents for the admission and the rest for candy and popcorn. One of their favorite treats was a coconut. They would buy one, puncture it with a nail, drink the juice, and then break it into little pieces which they could chew all through the movie. Some children stayed on to see the show over and over again, not caring about what Papa would say about them coming home late.

Young girls of the patch had a busy schedule throughout the day. They pitched in with their mothers to do the dishes, laundry, housecleaning, and plenty of sewing. The girls were taught to sew and repair at a young age because their clothes had to last them a long time. Also, their fathers' and brothers' work clothes needed constant attention. A young girl felt proud when she had made some little thing for herself or her mother, like an apron or pot holder, all by herself. These things were usually made from a flour sack, since these bags were saved for many purposes.

The boys had a different routine. They would wait around outside the local saloons. As the miners stopped

by after their shifts were finished, they usually had some errands to be done. If a miner needed something from the store, he knew that one of the boys would be willing to run for it. There would always be a penny or two in it for him.

Since many of the miners made their own wine, they were always looking for a couple of boys to help them pick wild grapes, elderberries, and blackberries. It took a lot of berries to make a barrel of wine (about fifty gallons). This was hard work, but the boys would be paid two or three cents a quart—another way of making money for the Saturday matinee.

If a family owned a cow or two, it was a daily routine during the summer months to take the cows out into the fields in the morning and bring them back in the evening. The boy also had to stay out in the field all day to tend the animals so that they did not wander off. There were boys who would watch not only their own family's cows but also those belonging to other families. Since a boy would be in the same location each day, a miner would take his cow out to him in the morning and then go to work. In the evening, he would pick up the cow on his way home from the mine. The boys would be paid fifteen or twenty cents a week, or even twenty-five cents if they brought the cows home themselves.

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Summertime in the patch was also the time for baseball. The boys usually had few balls, though, and these were used year after year until each was pretty well worn out. A torn cover would require some stitches; they would ask one of their fathers to sew it. Often, when the cover

was just about completely torn off, Father had to bring a roll of tape home from work for the repair job. Usually electrical tape was used. Sometimes, a gang of boys would take their ball right over to the electrician's house and ask him to repair the ball for them. He would generally always be glad to help.

There were various other games played on the street by boys and girls, both during the day and at night with the help of a street lamp. "Duck on the rock" was a good one: the boss of the game would put a rock about the size of a baseball on top of another, flat rock. The other boys in the game would stand twenty-five feet back and toss their rocks, underhanded, to try to knock the boss's rock off the flat rock. If you knocked it off, you were given one point by the boss. Wooden matches, bottle caps, and so on served as points. If you missed, you paid the boss one point.

"Swinging the can" was another popular game. A ring was marked off, twenty feet in diameter, with a center spot for the turner, using coal ashes. (Getting ashes was certainly no problem for the children since every house had an ash pile.) The turner had a ten-foot pole, to one end of which was attached a ten-foot wire. On the other end of the wire there was a tin can. The turner had to swing the can around in a circle, twisting the pole to keep the wire from coiling around the pole. As the can came around, the other boys stood outside the circle with broom handles and swung at the can. When struck, the can would be bent on the wire, making it more difficult for the next boy to hit it.

The girls would also get some ashes and lay out their own games. They usually played hop-scotch, measuring

out the lines with the ashes. On payday, the miners had the young girls run races, and the winner would receive a few pennies. This was also done with the boys, but the parents usually enjoyed it most when the girls raced.

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Most boys were fairly good hunters. They would cut a good tree branch, find a piece of rubber or old tubing, cut a leather patch from an old boot, and make themselves a sling shot. Some nice round stones about the size of a marble were collected as ammunition, and they were ready for the hunt. They took to the woods to find sleeping rabbits; if they saw a target, they took careful aim, knowing that a successful shot meant rabbit on the dinner table that evening. Hunting was much better in the winter, of course, since if a boy missed and the rabbit ran off, the boy could track it easily to get another shot. The rabbit's brown fur was also highly visible against the smooth white snow.

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Local garbage dumps were a big help to miners' sons. Boys would visit them frequently in search of equipment for their various games, but especially for wheels of any size. If anyone found a pair of wheels and maybe a frame from an old bicycle, he could build himself a scooter for some downhill racing around the patch.

Tin cans from coffee, lard, or fruit would be taken home as well. A window would be cut into one side and a wire handle attached to the other. With a candle stuck inside, the can would become a fine lantern. These lanterns were enjoyed all year long but were a great use at Halloween.

There was always a search for iron wheels at the dump, for these could be the beginnings of a wheelbarrow, a popular and useful means of hauling for the coal miner. Miners mainly used wheelbarrows to bring in the winter supply of coal from the culm dump. Women and children could often be seen coming from the dump with a couple of bags of coal loaded onto a wheelbarrow while the miners were hard at work.

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Stealing was a common occurrence among the miners' sons. They would steal almost anything, even from their own fathers. The miner bought his tobacco by the pound. It was then placed in cans at home for smoking or chewing. The boys would wait for the right opportunity, when everybody was out, to steal a bit of the tobacco. This they would take to their favorite hideouts in the nearby woods and roll in a piece of newspaper; then they would sit back and smoke just like Dad. Bull Durham was sold in the stores at the time. It came in a bag with a package of cigarette papers, but it would not be sold to any youngsters. They would ask an older fellow to buy it for them instead, then take it to their hideout and enjoy their smoke. The boys were constantly warned by their parents about smoking. They were careful never to be caught with any tobacco on their persons since, if discovered, that would mean the strap. It was safer to leave the tobacco in a tin can back at the hideout, where they would return, when possible, to enjoy it.

Some families had grape arbors in their backyards. The boys would visit those to collect the dry leaves that had fallen from the vines. These could be crushed by hand

and rolled in newspaper to be smoked. You were considered a tough fellow in the patch if you could smoke one of these cigarettes, because most of the boys became sick from the taste.

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Hucksters came often through the streets, selling fruits and vegetables. They would call out or blow a horn as they passed to tell the people that they were coming down the street. Women came out to purchase whatever they needed from the wagon, but the boys would also come around. In these cases, the huckster would have to wait on the ladies while still keeping an eye on the boys. He always knew what they were up to around his wagon. If he took his eyes off them for a few minutes, one would steal a piece of fruit or another small item. The peddler had to be careful, because if he ran after the one boy, the others would grab their share back at the wagon. Therefore, it was best for the peddler to stay close to his wagon at all times.

A daily chore for one young fellow was to feed the family chickens and collect the eggs. As he got a little older and needed a few extra cents, an idea occurred to him that, if he hid an egg or two a day, his parents would not miss them and he would be able to sell these eggs on the side. He found a place in the wood pile behind the coal shed to hide the eggs. When he had accumulated a dozen, he would walk a mile or so from home to some neighborhood where he was not known, and sell the eggs for ten cents a dozen. The money he collected in this way gave him the price of a movie ticket or some small item that he wanted. The youngster continued this for some time, until he found other ways to make money.

Evenings, boys would gather at bunks in the woods near the patch. Someone would sneak a salt shaker from his house and after dark the boys would go to a nearby farm and steal tomatoes or sweet corn. Back at the hideout, the boys would have a grand time eating the tomatoes and roasting the corn. Of course, they all said the food tasted better out there than it ever did around the supper table.

Children enjoyed a little chase once in a while. Someone had invented the "tick tock." When it got dark, one boy would sneak up to the window of a house and attach the tick-tock: a tack was pushed into the window frame and a nail was hung about a foot below the tack. Also tied to the nail was another string that reached to the backyard fence. A boy behind the fence would pull this long string back and forth to make the nail hit the window on the return swing. When the nail was heard banging against the window, someone would come out to see what was going on and find the tick-tock. He would follow the string to the back fence. At that point, the boys would take off, often with an annoyed miner close behind.

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Stealing squibs from their fathers was another source of fun. Squibs were paper cylinders filled with a small amount of explosive and a fuse that were used in the blasting of coal-beds. Powder was packed into a bore hole, with the squib placed in front of this. After being lit, the fuse would burn slowly until it hit some of the powder. It would then fly into the hole and strike the rest of the powder to set off the blast.

The miners would be having a good time at the saloon, drinking at the bar or playing cards, when one of the boys would go up to the door and place a lighted squib in the keyhole. When the fuse hit the powder, the squib would shoot across the room. The boys would wait in the window to watch the reaction of the miners inside. This brought the saloon keeper out after them in a chase over fences and through backyards and alleys. If you were caught, it meant a good thrashing by a very angry saloon keeper.

The boys would also go from porch to porch after dark and collect sparrows that slept on the tops of porch pillars. And with these, they would wait near a saloon door for a miner to come by. As the man opened the door to go inside the saloon, the boys would throw a few sparrows in behind him. Out would come the keeper and another chase was on.

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Bunks played a big part in these young boys' way of life. Some fathers were against them, while others were in favor of them. If a father did allow his son to build a bunk in the backyard, the neighborhood boys would quickly gather scrap lumber and start building, lining their creation with cardboard for insulation. A stove was built from a drum of some sort, with wood burned inside. If an old potbelly stove could be found, coal could be used to keep the bunk warm. Then the boys would have to go to the culm dump to pick their own winter supply.

A favorite pastime in the bunks was card playing. Wooden matches were used instead of money. The boys learned to play "bank." Several piles of matches were

made on as many piles of cards. A pile of cards was then cut. Anyone with a lower card than the dealer would win the matches on his particular pile. If the dealer had the low end, he won your pile of matches.

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All of this mischief, of course, would bring complaints to the local burgess. Finally, it was agreed upon to have a curfew. The colliery whistle would be blown at nine o'clock every evening. The constable patrolled the town to enforce the curfew. The boys disliked all of this very much, but the law was strictly enforced. Eventually, stealing and other related misbehavior was almost completely eliminated.

DYNAMITE BOXES

The dynamite box was an item that had many uses around a miner's house. If he needed a new supply of dynamite for the day's tasks, the miner left for work a little earlier that morning in order to stop at the powder shanty. He would break open a box of dynamite with a wooden mallet and pack what he needed into the burlap bag he had brought along. Many a boy would get up at 5 a.m. to go along to the shanty and wait for a miner with a loaded sack over his shoulder. The boy would ask if he could help the man load and carry the sack. The miner always obliged because he knew what it meant to the boy to help out and to get the empty box.

Each morning the miners approached the powder shanty from different directions, depending on where they lived around the colliery. It was always enjoyable to watch the youngsters run toward the miners for the bags. This sometimes resulted in a foot race between a few boys, in which the fastest runner got the bag, of course. The boxes were used for storing various items or for making shelves in a cellar or shanty, flower boxes for Mother, benches for the little children, stepping stools, and many other useful items.

“ROBIN HOOD”

Every mining patch had its good and its bad boys, but this particular fellow from Steckler Patch was a little different. He was known as “Butch,” but, after a few of the incidents that I am about to relate, was tagged with the name “Robin Hood.” You could not help but like this young fellow. Rarely did anyone have anything but nice things to say about what he did for the people of the patch.

Butch would whittle baseball bats from tree limbs and make baseballs for the younger boys by winding string around a piece of cork. You would often see him in a garden helping a friend or neighbor put up a swing on a tree or grape arbor, or set up a teeter-totter from a plank and a block of wood for the children. When winter came, he was busy crafting skis out of old barrel staves; toboggans from corrugated tin; and the most enjoyable toys of all for both the children and adults, bobsleds. These he would build in various lengths to fit as many as ten or twelve people. It was a fine sight to see a jolly gang flying down some hill in wintertime, screaming and shouting with joy, thanks to Butch.

I recall his playing a game of tag with the coal company police. Near a certain cave hole there was a twelve-inch water line, used by the coal company for pumping water out of the mines into a local stream. Butch thought that by breaking the pipe and filling the hole with the sulfur water from the mines, the older boys could have a place to swim. This little project brought the company police

to the area to find out who had broken open the pipe. Since of course, none of the boys would give them any information, the police simply had the pipe fixed and ordered the youngsters to stay off the property. Butch, however, went back that night and broke the pipe again. The next day the company repaired the pipe, and the following night Butch proceeded to undo the repairs once again.

This game went on for days until finally a watchman was stationed near the pipe for the night. But even then, Butch would lure him away from his post with a running chase, while one of his henchmen stayed behind to break the pipe. After a few weeks' success at this, he finally gave up the plans for a swimming hole.

Butch knew the miner and his family were always in need, because many times work was slow or strikes stopped operations completely. Therefore, Butch and his gang would sneak around the local farms at night to steal anything that might be available for somebody's kitchen table. Many a miner's wife opened her back door in the morning to find a tasty surprise. Nobody ever knew where the things had come from, but they usually had a good idea who had put them there. This happened quite frequently in the patch, so that the miner would take the goods into the house and just keep quiet about it, waiting for his turn to come again.

Freight trains came out of the local railroad yards very slowly, their old steam locomotives puffing for all they were worth. Near Mountaintop, there was a slight grade which required an additional engine to pull the load. Butch and his gang would hop a coal train leaving the yards and begin stacking bags of coal along the edges of

a car, so that when the train reached a set place, the boys would push the bags over the edge onto the bank, where they would break open. Certain people were told to be waiting at these places to gather the coal and divide it up. Whatever coal supplies spilled were quickly snatched up at a considerable savings to the miner's budget.

As wintertime set in, a crowd made plans for a big operation. On a chosen night, men, women, and children got their carts and wheelbarrows together, ready to work all night. They picked a train and a meeting place. As the train passed by, Butch's henchmen would break open the hoppers. Tons of coal would then be strewn along the track. The people rushed to load anything they had. Children held bags while parents shoveled in the coal then all hurried home to fill their coal sheds, only to return for another load. By daybreak, the track was clean.

At times there would be investigations by the company, but it was impossible to secure any information about the operation from the people in order to prosecute. Butch and the gang would repeat their act when things cooled down. All in all, he kept the miners' coal sheds very well supplied for winter.

One day a freight train stopped for some reason on the outskirts of the patch. It was there only a short time while before Butch and one of his friends, curious as to what was in the box cars, picked one of the cars at random, broke its seal, and pushed open the door. Inside was a load of round flat wooden containers labeled "Brick Cheese." Butch said that the miners liked cheese, so the two began pulling containers out of the car and onto the siding. Word quickly spread throughout the patch. Soon, people were running in every direction with

containers of cheese, some hiding their loot in a nearby wooded area, under the coal of their sheds, even in chicken coops—anywhere the police would not think to look in the event of an investigation. A week or so went by and no police came around. Probably, the cheese was not missed until the train reached its final destination. Of course, by then nobody would know where or when the daring theft had occurred. Butch had once again made a lot of families happy. The purloined cheese became the major highlight of the miners' menu for a couple of weeks.

CONDITIONS AND ABUSE IN THE BREAKER

The breaker employed the young boys of the patch, between the ages of seven and eighteen years, and a few old timers who had spent their best days in the mines and were now given menial jobs around the colliery. This gang was known as the "breaker boys." Some of these fellows were so small that it was a comical site to see them going to and coming from work with their dinner pails almost touching the ground. During the winter months, the pails would drag in the snow.

Some youngsters enjoyed the work, but they were at that age when there was often a little too much clowning and not enough working. This, of course, did not sit well with the breaker boss. The foreman had complete charge of operations within the breaker, so that he also supervised the work of the boys engaged in the sizing and cleaning of the anthracite that moved down the chute between their feet. As the boys sat over the pan lines, they were constantly being watched by the foreman. He carried a favorite stick with him, and if he saw any slacking or fooling around, down would come that stick across the backs of the culprits.

The foreman also had a few stooges placed in among the boys to help control them. During the course of a day's work, the boys who had felt the stick would have a few buddies who would throw pieces of coal at the foreman when his back was turned. The next day they too would

feel the stick and wonder why. But the boss had his stooges report to him at his home every evening, and so he knew all about the antics of all of the breaker boys. The youngsters would get a chance to even the score, however, when they found out which worker was the stooge. They would beat him up after work that evening, so that the foreman would have to bring in a new accomplice the following day.

The breaker boss did all the hiring. He would check a boy over pretty thoroughly before hiring him. A boy would have to be physically fit enough to do a hard day's work. Sitting in those chutes for ten hours a day, working steadily, was a very tiresome business. It was the breaker boys' job to pick out any rock or slate that was mixed in with the coal as it came down the chutes and throw these into the waste line to be removed to the outside dump.

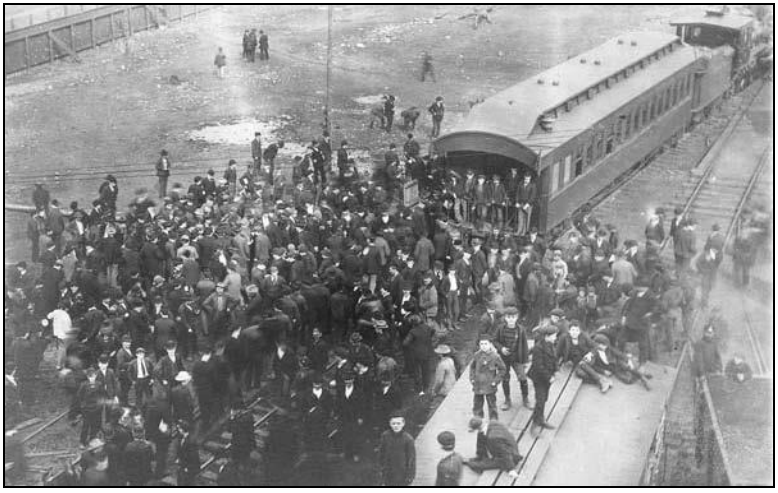
You could always tell who was a breaker boy by just looking at his fingers. Gloves were not worn on the line because they made picking out the waste difficult. Therefore, since they had to use their bare hands, the boys' fingers were always red and raw. Some fellows would often use this as an excuse to leave work, only to be caught later playing ball or fishing.

The breaker was a noisy place when all the chutes were operating. Added to this was the constant rumble of coal cars being loaded and unloaded. It was also a very dusty place in which to work, since operations in the breaker were for a long time run dry. Only in later years was a water line introduced to wet down the coal as it passed through the breaker. The black dust settled heavily on the boys' clothes.

Winter made the breaker a very cold place. Set out in the open as it was and because of its height, this building always caught even the least bit of wind. Its many windows were constantly being broken by the heavy vibrations of the chutes running inside. (Naturally, the breaker boys themselves also caused a number of broken panes in the building.) The only available heat was that from the steam lines running through the building.

The greatest moment in a new breaker boy's life came when he received his first pay envelope. It would seem to the impatient youngster that the big day would never come, as he watched the calendar. Finally the pay car would arrive at the colliery and the paymaster would head for the office with his strongbox full of gold and silver. The boys would shout for joy. The boss would send a few slate pickers at a time for their pay, so as not to slow down the operation. This was one day in which the boss himself would get into the chutes and take up some of the slack as the boys were sent to collect their pay.

Some breaker boys were bashful about approaching the paymaster's window, however, especially if he was a bully type. He would take a good look at each boy while he checked his pay voucher—a look that was mean enough to frighten even the most seasoned veteran of the breaker.



Payday in Mining Country

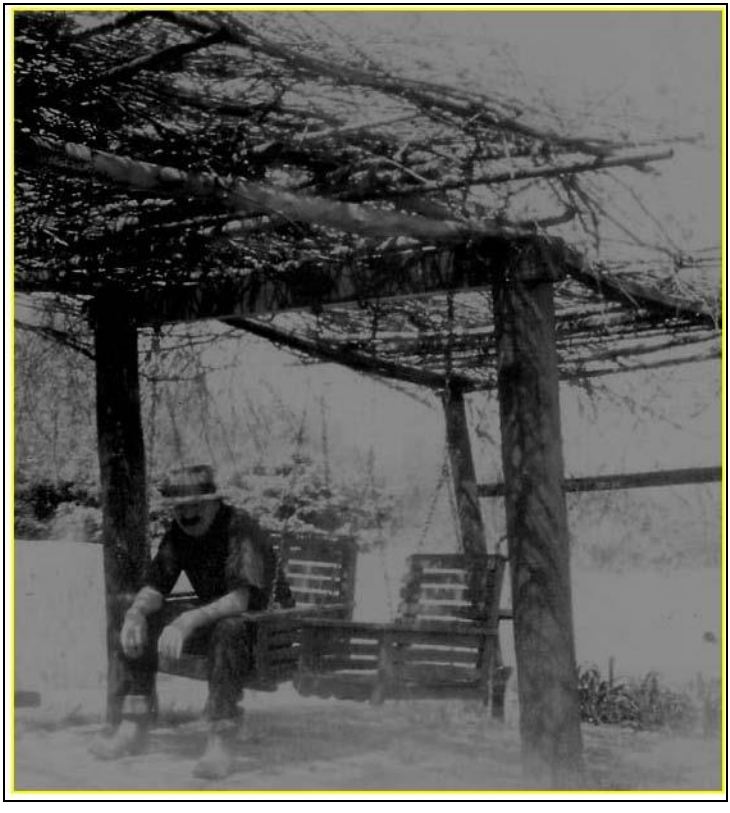
Around the colliery yard, most of the older men would be discussing how or where they were going to spend their money, but the boys knew exactly what they had to do: bring the money home to their waiting mothers. After both father's and son's pays were divided up according to what bills had to be paid that week, Mother usually managed to find a quarter or so to give her boys for spending money. Of course, the candy, soda, ice cream, and tobacco on which those young fellows would spend their allowances cost only a few cents each. Although it may be surprising to mention tobacco among youths, you must remember that, because of the dust in the chutes, the breaker boys took up chewing tobacco to wet down their throats.

The breaker boss knew that he had a grave responsibility with all those young boys in his charge. While many of them did not realize the dangers of working in the breaker—with all its huge and potentially deadly wheels,

belts, and pulleys—he certainly paid close attention to his workers. He could be very strict with them at times, but he had a job to do. There was always the possibility of becoming caught in any of the moving lines, which might cost a boy a hand or foot. If anything like this did happen to one of his boys, the boss would become very upset.

Eventually the job of the breaker boy was replaced by machinery: large rollers through which the coal dropped to be crushed and a set of screens of different mesh sizes that would allow pieces of coal in the various market sizes (known as egg, chestnut, pea, and buckwheat) to be separated. These were washed and loaded into railroad cars and trucks for shipment. Although this was the setup in a modern breaker, a large human workforce was still needed to keep the machines operating and in good working order.

“BLACK LUNG”



Many miners became disabled after as few as ten years in the mines with anthracosilicosis, the lung disease that has come to be known as “miners’ asthma” or “black lung.” Years of working in the close chambers of a mine, the air heavy with coal dust, coated the miner’s lung passages with dust, eventually causing them to lose their natural elasticity. Breathing became extremely difficult,

which put an extra strain on the heart. Even after a man had stopped working in the mines, he would still suffer, since the original lung damage was irreversible, and only made more critical with age.

After work each day, the miners would sit out on their porches, for the fresh air made breathing a little easier for them. Summer was the worst time of the year: the hot humid air was difficult for black lung victims to breathe. If they could cough up some of the dust, they would feel some relief.

The miners had their own ideas about overcoming the dust problems within the mines. Some would drink water while at work, having carried it to work each day in any kind of container, even gallon jugs. Others chewed tobacco. The local saloons were always filled at the end of the workday. If you had never worked in the mines but were at the saloon—seeing these men drink to cut the dust, cough it up, and spit it out into a nearby cuspidor—it would certainly make you wonder why they worked under the conditions they did. This was their livelihood, though, probably the only work most of them knew how to do.

It was not until 1969 that the first federal compensation law was passed. In 1960, a miner named Arnold Miller, who later became president of the United Mine Workers, organized the Black Lung Association. Many miners and some doctors joined him. What followed was ten years of one of the most exciting fights the anthracite region has ever witnessed. All kinds of discussions were held between doctors supporting the companies' position and those on the side of the miners. After a continuous series of strikes, protests, and parades, all of which served to

prove to Congress that there was strength and power within the Union, Congress passed the Coal Mine Health and Safety Act. It provided disability benefits for black lung victims. Both the coal operators and the federal government saw to it that ventilation of the mines was improved. Since the new law required the companies to pay more than half of the amount of the benefits, they now wanted to try to cut down the number of claims as much as possible.

In applying for the benefits, the miner went to several doctors and Social Security agents, and appeared before various boards set up in the area to hear testimony. He probably would be sent back for more records, X-rays, doctors' statements, and so on, in order to prove that he was disabled by years of working in the bad air of the mines. Most of the time, a lawyer would be needed to fight the case; of course, many miners could not afford a lawyer. All of this amounted to a long, difficult process that sometimes took years to settle, even though a man had spent most of his life in the mines and was totally disabled as a result.

CONCLUSION

Many years went by in the anthracite region. Sons and daughters saw what their parents had gone through and felt that there was no future in the coalfields for them. Some hard decisions had to be made about leaving home and going to some distant cities and states. It was difficult for a father to tell his children to go, but he did not want his sons to end up working in the mines, with no future but that of becoming disabled with black lung.

In the northern part of the region from Pittston to Carbondale, many young people went to the Binghamton area and secured work there in factories. This was around 1925, when jobs were not plentiful in these areas either. Some people went to the Philadelphia area and found work. In many ways it was like the old days between 1890 and 1900, when the immigrants were sending to Europe for their friends and relatives to work in the mines. When one found work in the city, he would send for his relatives and friends to join him.

The mines were, by then, only working a few days a week, and the take-home pay was small. Therefore, if a son or daughter worked in the city, he or she would often be able to send home a few dollars each week. I have seen many a mother, after receiving such help from one of her children, break down and cry. These monetary gifts, however small, often paid the rent and kept the sheriff from putting families out for overdue rent. They also helped pay the bills at the local store. (The local storekeeper would issue you a book in which to record

your purchases. While some owners operated an honest business, others would enter items or prices in your book to cheat you of as little as five cents. Many of the men and women who went to these stores did not understand arithmetic and could not read, and so were easily taken advantage of by corrupt storekeepers.)

After 1925, labor strikes were not as frequent. The mines picked up a little. It was not until the late 1930s that the coal region began to boom. During that time, the Works Progress Administration (WPA) was formed and through it, many towns and cities prospered. Workers built new roads and installed new sewage lines, protective walls, sidewalks, curbs, and so on.

The miner and his family began to prosper somewhat as fortunes and fashions changed. Miners' old felt boots began to disappear, to be replaced by more modern styles, but the old timers always said that nothing could replace the old felt boots for warmth. The young boys enjoyed new high-top shoes with a scout knife in the pocket on the side of the shoe. The young girls knew that they were in the height of style when Mother brought them to the neighborhood lady who did ear piercing. The miners and their sons became fancy dressers, with their plug hats, spats, bowties, and straw hats. Some fellows felt that they were not properly dressed if they were not carrying a cane of some sort.

The new railroads began to give the people of the coal region an opportunity to see some places they would otherwise never have seen. People began to organize excursions to various lakes and amusement parks, setting trip dates and selling tickets. Families prepared weeks in advance by getting food and refreshments ready for the

gala. The train ride itself was very exciting. When the train came to its various stops, the people would cheer and shout in their excitement. The excursion did not usually take them very far, but it did seem like quite a trip because of the slow ride given by the old steam engines. Still, it was an all-day affair from early in the morning until long after dark. At the park or lake, there were usually rides for all of the family. Between the train trip, the rides, the various games, and the food and refreshments, it was certainly an enjoyable day.

With prosperity came needed improvements to living areas. The coal companies sent groups of workers around the patches and towns to repair homes and foundations that were damaged by subsidence caused by the mining operations underneath the patch. At the same time, many miners began painting and decorating their homes. The old familiar appearance of the miners' houses—crude, unpainted board sidings—was disappearing. "Brick-tex" came on the market, and its popularity rapidly spread, as one miner after another began finishing his house with this material for a nicer appearance.

Meanwhile, the old hand-washing machine was being improved and was later replaced by an electric version. Electric irons, toasters, and other kitchen appliances appeared in local stores. If the miner could afford it, he would buy one item at a time to improve his home and make his wife happy.

The old streetcars began to be replaced by buses or trackless trolleys. This caused commotion of all kinds in the surrounding towns. The tracks were torn out of the streets, leaving the surfaces rough. Little or no repairs to these streets caused damage to the few vehicles that did

run over them daily. The people who owned automobiles were happy to see the tracks removed, though, since these often caught the thin tires of cars and caused many a driver to lose control of his vehicle and end up in an accident.

Dance halls and orchestras were quite popular in the early 1920s. Neither of these was very large, but they did provide a great deal of entertainment in the small towns. As transportation improved, bigger and more popular bands began to appear in the larger cities. People from the small towns and patches would come to the city to dance to these bands.

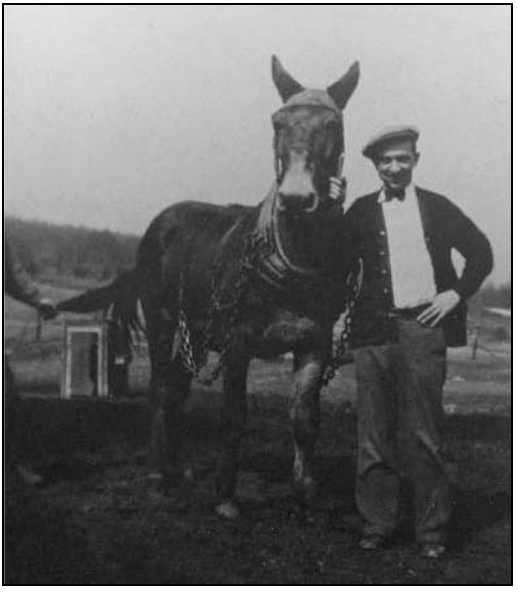
Electric and telephone companies also began making great improvements in small towns. Gas, electricity, and oil began to take the place of coal in homes. Oil became the primary means of home heating. All of this gave the local coal-mining industry a tremendous setback. Mines began to close down. Breakers were dismantled or burned.

Most of the coal operations in the anthracite region have been shut down. But with today's energy crisis, interest is once again centering on the potential of coal. Ohio, Pennsylvania, New York, and New Jersey all still have millions of tons of coal yet to be mined. Various state and federal commissions continue to consider the further employment of miners and issues of mine safety, training policies, and job growth.

Today, as you travel through the old anthracite fields of the American Northeast, you find very few reminders of the old days. Gone are the patches and collieries. What has replaced them are towns, cities, and factories like

those you would see anywhere else in the country. The few remaining coal operations are looked upon with curiosity. But what has remained in the hearts of the people is the proud memory of the immigrant miners in their struggle to build a good life for themselves and their families through the hard, honest labor of their own hands.

Area Photographs



Ed Plona and "Maude"

Brothers gathering coal at a dump - 1923

“Mule Power”

“No. 9 Outside Crew” - 1916

At the Babylon Shaft - 1926
Pictured are Buck Pakorny, Bill Simon, Ed Plona

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Pittston Library - Pittston, PA

Scranton Library - Scranton, PA

Wyoming Library - Wyoming, PA

Anthracite Heritage Museum - Scranton, PA

Personal accounts and newspaper clippings from the following people:

Joe Bellas, retired coal miner

Frank Boccollini, retired coal miner

Frank Chervenka, Sr., retired coal miner

Steve Gike, retired coal miner

Anna Komensky, wife of a coal miner